

Title: What interventions work to improve relationships between birth parents and children in foster care?**Vincent Icheke PhD (1)*, Charlotte Paris MSc (2)***

1* School of Health and Social Care, London South Bank University, UK

2*Shaw Family Centre Contact Service, Dept. of Social Services, Surrey County Council, UK

2*Child and Family Contact Service, Children's Services, Surrey County Council, UK

Abstract

The number of looked after children in the United Kingdom (UK) is at a thirty year high culminating in the current reduction in adoption placements and subsequently leading to case stagnation (DOE 2015). It is, therefore, imperative that caseworkers throughout the country are knowledgeable about effective interventions that improve birth parent and foster child relationships. The number of looked after children in the United Kingdom (UK) is at a thirty year high (DOE 2015). With a current reduction in adoption placements (DOE 2015), it is imperative caseworkers throughout the country are knowledgeable about effective interventions that improve birth parent and foster child relationships. This paper conducted a systematic literature review through a combination of hand and electronic database searches to select, appraise, extract synthesis and analyse primary articles to establish what works. Both a heterogeneous group of participants and interventions were included. Through a narrative and cross studies synthesis findings demonstrate that a variety of appropriately targeted interventions provided collaboratively and inclusively may work to improve relationships between birth parents and foster children. These include a variety of parenting programmes (birth parent, joint birth parent-foster carer or foster carer training), Family Centred Practice, Outreach case work, a Parent Partner mentoring service and Family Treatment and Drug Courts. Parent Partner mentors were of particular interest in their potential ability to engage birth parents. They were able to offer a unique perspective and present as excellent role models, having successfully reunified with their own children via welfare assistance. Results also demonstrate that a variety of parenting programs were effective when incorporating birth children and taking a whole family approach, for example parent-child therapy and allowing opportunity for contact to practice learnt skills, open foster carer approaches and collaborative case work. Birth fathers were further highlighted as a potentially missed resource and if engaged appropriately through the use of written agreements birth family relationships could be improved at no added governmental cost. If effective evidence based interventions and approaches are used more widely in practice, there is potential for increased birth family reunification and/or ongoing positive relations, contributing to child and parental wellbeing and easing pressure on the care system in the process. However, further research is required to establish if Parent Partner mentors are as promising as they appear within the UK and also whether written agreements alone will be enough to engage fathers to impact positively on family relationships.

Key Words: Birth Parents, Birth Family, Children, Foster Care, Intervention, Reunification**Background**

'The number of looked-after children is at its highest point since 1985 with a total of 69,540 accommodated in March 2015' (DOE 2015). This picture is not uncommon throughout the western

world. For example in the United States a child enters the care system every two minutes, with a 4% increase over the last few years, totalling 415,129 child foster placements (US Department of Health and Human Services (2014). In the United Kingdom many placements stagnate due to a reduction in availability of adoption places (DOE 2015). In the United Kingdom many cases stagnate due to the current reduction in courts granting adoption orders, who instead favour exploration of Special Guardianships (DOE 2015). This, along with increasing statistics, highlights the need to ensure foster care is a place that children can thrive and, where possible, a time to work with birth families in the view of reunification or to establish ongoing improved relationships, that can be maintained alongside the fostering role through appropriate support services.

The Children Act 1989 puts a strong emphasis on the local authority to work in partnership with parents (Fostering and Adoption 2014) regardless of a child's legal status (Schofield 2011) and states that the child has a right to contact with their birth parents. The UN Convention of the Rights of the Child (1989) further highlights the right to family life and to maintain contact where possible and under article 8 of the Human Rights Act 1998 there is a requirement to respect one's established family life.

There have been a number of government initiatives such as 'Think child, think parent, think family' (2011) and Every Child Matters: Change for Children (DoE, 2003) under the legislative framework of The Children Act 2004 with a focus on keeping families together and working towards childhood and later life wellbeing. However, once a child enters into the care system it is very much predominately in the hands of the case worker who determines how much and on what terms a foster child and birth parent have a relationship. In a risk averse culture, greatly impacted by serious case reviews such as Lord Laming's (DoE, 2003) Victoria Climbié inquiry and Baby Peter Connolly's (Haringey Local Safeguarding Children Board, 2009) second case review, once a child is removed reunification and improvement in relationships between birth parents and foster children can be difficult as social workers are likely to err on the side of caution. In such situations it is important that workers strive towards doing the right thing (for families) as opposed to doing things right (for the system) (Munro 2010).

It is essential that often overworked and time restricted social workers have knowledge about what interventions are more likely to improve relationships between birth parents and foster children to best assist the families they work with. This in turn should increase the likelihood of successful reunification/encourage successful maintenance of the birth parent-foster child relationship throughout their journey in care and decrease revolving door situations - a problem highlighted by the NSPCC and the breakdown of family ties the longer the child stays in the care system.

Once a child enters care there is a focus on improving the child's well-being centred around medical, educational and emotional needs by placing them in appropriate educational settings, individual therapy and attending medical appointments (Lewis 2011) while parents are typically required to complete a number of tasks tailored to their individual needs such as completing parenting classes, anger-management courses, substance misuse programmes, individual therapy etc. (Lewis 2011). 'The unintentional consequences of separation in the name of protection is that parents and children have fewer opportunities to be together to connect and families become diluted (Colapinto 1995, as cited by Lewis 2011 pg.441)

In this difficult climate where such intervention often keeps children and birth parents apart there is a need for evidence based research on what works to improve relationships between foster children and their birth parents and how to successfully engage parents into such processes. The Children Act 1989 points out that parents have the right to have their own needs recognised and offered support in the spirit of partnership (Schofield and Ward, 2011).

The DOE 2010 – 2015 government policy highlights recent evidence based research for early interventions such as Functional Family Therapy, which have directed and determined funding to local authorities. However, such research can all too often be focused on interventions for general population families, children at the edge of care, foster carers e.g. The KEEP program or adoptive parents e.g. The Adopt program, while there is less emphasis on foster child and birth parent interaction and relations. However, recent developments further afield by the US. Child Welfare Information Gateway, in its Family Reunification: What the evidence shows Issue brief review (2011), displays a useful overview of what assists in successful reunification.

The current paper intends to extend and update this work by also including relevant papers from outside of the US. Furthermore it is not only interested in reunification but also concerned with the maintenance and development of improved relationships between birth parents and their respective foster children on a long term basis, whose children in some cases may only exit the care system when they become adults. 'Thoburn (1996) argues the need for a model of social work practice that acknowledges the dual importance of both foster carers and birth parents and values the potential contributions of parents, even when their primary role may be to 'care about' rather than 'care for' their children (cited in Schofield and Ward 2011 pg.8).' These potential contributions might well encourage wellbeing in foster children throughout their years in care, up until the time they inevitably leave as young adults and beyond.

The benefits of increased reunification and improved relationships throughout care could potentially, not only improve many more families wellbeing and quality of life along with more positive outcomes for care leavers but could ease pressure on the care system itself and decrease public funds that are used to counter the long term negative effects of unsuccessful experiences in care such as unemployment, homelessness, mental health problems and anti-social behaviour.

Aim and Objectives

The aim of this paper is to systematically review a wide range of interventions used by professionals to improve birth parent and foster child relationships when they enter into the care system.

Once an overview of what is available has been established, effectiveness will be assessed. The overall intention of this paper is to provide insight and knowledge to social workers in the field about effective evidence based interventions to better assist the families they work with. It further intends to assist policy makers in making informed decisions about the most effective approaches to push forward and fund.

Objectives

- Search for papers on all interventions used to promote birth parent and foster child relationship.
- Collect data on above interventions
- Compare primary papers on the different interventions
- Compare findings of this review with other reviews
- Provide guidelines for helping professionals improve relationships/contact between birth parents and foster children.

Review Design

Bettany-Saltikov (2012, pg. 5) states 'a systematic review is a summary of the research literature that is focused on a single question'. SCIE (2010, pg. 12) guidelines for systematic research reviews state the 'overall purpose of reviews is are to support the information needs of decision-makers by gathering, describing and synthesising relevant evidence using transparent and systematic methods'.

This paper will conduct a systematic literature review by appraising and synthesising all selected and high quality research evidence (rigorously obtained and scrutinised papers) relevant to the proposed question (Bettany-Saltikov 2012). It will ensure all evidence fits pre-specified eligibility criteria to minimize bias and provide sound results.

The Research Question

The research question was chosen to evaluate the best approaches and interventions that work to improve relationships between birth parents and foster children, in turn increasing family reunification, reducing revolving door cases, improving in-placement stability and long term emotional wellbeing for child and parent.

We used Population, Intervention, Comparison and Outcome (PICO) format recommended by Bettany-Salitov (2012) to form and breakdown all component parts of the review question. As the question is to do with focuses on what interventions work, a PICO format was more suited in comparison to Population, Exposure and Outcome format (PEO).

Table 1: PICO question

Population	Intervention	Comparison	Outcome
P1 Foster Children	Any interventions used by professionals that are found to improve relationships between foster children and their birth parents.	In the absence of intervention.	Reunification (increase, reunification stability, readiness for reunification)
P2 Birth Parents		Comparison of interventions uncovered.	Improved parenting skills Reduction in child problem behaviours.

The PICO took an inclusive approach, including a wide population with foster children aged 0 -18 years and any interventions delivered by a variety of professionals that have potential to improve birth parent-foster child relationships. The review was interested in improved relationships regardless of age and length of stay in foster care, as it was seen restricting these criteria may lead to missing potentially relevant studies. Interventions and approaches will be compared against the absence of intervention and further synthesised against each other one another. The main outcomes of interest are improved parenting skills, child problem behaviour reduction and reunification which measure improvement in birth parent-foster child relationship.

Search Strategy and Data Sources

Following fine tuning the research question and before commencing the systematic literature review, we carried out initial searches within the Cochrane Library, Campbell Collaboration Library of Systematic Reviews, and University of York Centre for Reviews and Dissemination and Google Scholar databases to determine whether the proposed question had already been undertaken. We carried this out by typing the review question into the respective search engines. Slight variations in title along with key word searches were also tested to minimize likelihood of overlooking relevant papers. We could not find any such review document in any of the above databases searched.

Electronic Database search

A preliminary literature scoping search of a number of LSBU databases was completed to determine whether there was sufficient relevant quantity of primary research to commence the review.

Alongside SocIndex which is the world's most comprehensive and highest quality sociology database, as the review question is looking at relationships between people, psychologically focused databases appeared appropriate and were also included.

Databases included were SocIndex with full text, PsycINFO, PsycARTICLES, Child Development and Adolescent Studies under EBSCO (a leading research database provider). Social Care On-Line was also searched but separately, which offers information and research on all aspects of social care and social work. This task gave a useful overview of relevant literature and reviews.

Search Terms

The following search terms were used for the initial scoping task.

"Foster child*" OR "looked after child" OR foster* OR "foster care" OR "in care" OR "looked after teenager*"

AND

Birth parent* OR "birth mother" OR "birth father" OR "birth family" OR "biological parent*" OR "biological mother*" OR "biological father" OR "birth famil*"

AND

Interven* OR approach* OR therap*

After a lengthy process of title and abstract reading, applying limiters and inclusion/exclusion criteria and discussions with the supervising tutor only a small number of articles were identified from the scoping terms. It was also noted that several papers within the search strategy had little relevance to the research question.

To assist in widening the search, careful consideration was taken to note relevant synonyms for the key components of the research question such as 'out of home care' a term describing 'foster care' that is used regularly in countries outside of the United Kingdom and also 'reunification' to locate more specific articles. Such terms were also stated in the 'keywords' section of already retrieved articles through the scoping process and were a helpful guide to the most relevant search terms.

The new keywords were tested out on SocIndex and refined accordingly to enable a manageable amount of hits. Boolean operators assisted in widening (using 'OR') or narrowing, (using 'AND') the search and truncations assisted in allowing all variations of a particular word to be searched. More specific synonyms were kept in, such as, 'Co-parenting' while others that were too broad e.g. 'approach' and 'therapy' were omitted. Refining the search strategy to ensure optimal quality was an iterative process through tweaking of keywords, Boolean operators and truncations. Boland et al (2014) highlight its time-consuming and repetitive nature. A gold standard review goal is to identify all available evidence relevant to the question, however. Due to time and person limitations the current search may not be exhaustive and not allow for such a standard, however, by developing a search history as demonstrated above using logical and systematic methods, attempting to gain a balance of sensitivity (not to miss out key papers, while including relevant papers) and specificity (excluding irrelevant papers) is the next best thing.

Hand searching for published and unpublished papers (Grey Literature)

Although electronic databases have dramatically advanced in recent years, they are not full proof and unlikely to identify all relevant papers on the research topic. Hand searching allows researchers to locate highly relevant papers that may not be included in electronic database searches (Aveyard

2014). For example, papers not identified by the specific search terms used, due to relevant literature categorised under different key words or current papers not yet published (Aveyard 2014).

Although a combination of free text words and subject headings go some way in identifying relevant literature, researchers have found that when cross-referencing electronic database results with ad hoc searches up to 20% of relevant papers were unidentified in initial electronic search (Betran et al 2005). This highlights the importance of supplementary hand searching to maximise the identification of all relevant literature.

Searching reference lists of key articles and review papers

One useful way of identifying other potentially relevant papers was to search the reference lists of the key articles and review papers. We noted while undertaking this search, a number of references within the lists of the key articles had already been identified through the electronic search term strategy and were either already included within the short listed articles or had been discarded due to irrelevance. This highlights thoroughness of the electronic search we undertook.

Hand searching relevant journals

From the key articles identified from through the electronic search, we noted that several were located in *Child & Adolescent Social Work Journal* and *Child Welfare*. These two journals were subsequently hand searched using subject heading terms “birth parent” and “foster child*” and browsing contents pages to locate any relevant material. Contents pages were also browsed to locate any relevant material.

The process of both hands searching the most frequently cited journals and looking through reference lists of journal articles and key review articles found, gives the best chance of identifying the most amount of literature. This avoids ‘cherry picking’ what we want to include and using the first relevant literature that we came across (Aveyard 2014).

RSS Feeds

Automatic alert links can also be useful to highlight newly published articles and other up to date relevant information on a given literature topic (Aveyard 2014). Thus, we set up automatic email alert link through Zetoc and notification alerts came through whenever new publications within both *Child and Adolescent Social Work Journal* and *Child Welfare* occurred.

Grey Literature

The term grey literature refers to published or unpublished research in non-commercial, non-academic form. Examples include government reports, policy statements, issues papers, theses, conference papers and standards/best practice documents (UNE No date). We carried out a quick search of the United Kingdom Clinical Research Network (UKCRN) portfolio database, previously The National Research Register (NRR) Archive, which holds a register of unpublished research, ZETOC and ‘Index to Thesis’ was undertaken to locate relevant grey literature. However, Wwe took a decision not to include this material in the inclusion criteria due to time restrictions and the knowledge that grey literature is generally not peer reviewed.

Author searching/ Experts in the field

Authors of the key review articles, relevant organisations and lead authors of included studies were contacted to ascertain whether further research had been conducted (published or unpublished that meets the current studies inclusion/exclusion criteria. To ensure a systematic review is of high quality the inclusion/exclusion criteria must be set prior to undertaking the review (Torgerson 2003 cited in Bettany-Salitov 2012 pg. 55).

Scoping search

Once the research question was refined, an initial search of major databases holding systematic reviews was conducted to ensure that the same systematic review did not already exist. These included the Cochrane Collaboration, Campbell Collaboration and University of York Centre for Reviews and Dissemination. databases of systematic reviews. These databases held reviews of published and prospective systematic reviews in the area of health and social care including protocols, abstracts, outlines of methods used and contact details of authors. These databases They were searched using the PEO terms described within Table 1 but no systematic review with a similar research question was found.

Inclusion and Exclusion Criteria

Before developing a search strategy, a PICO inclusion and exclusion criteria in table 2 was assembled to assist with assessing whether papers identified by the search strategy were relevant and addressed the proposed question. This ensures the search can target relevant articles that will answer the question and exclude ones that did do not (Bettany-Salitov, 2012).

Table 2: Inclusion and Exclusion Criteria

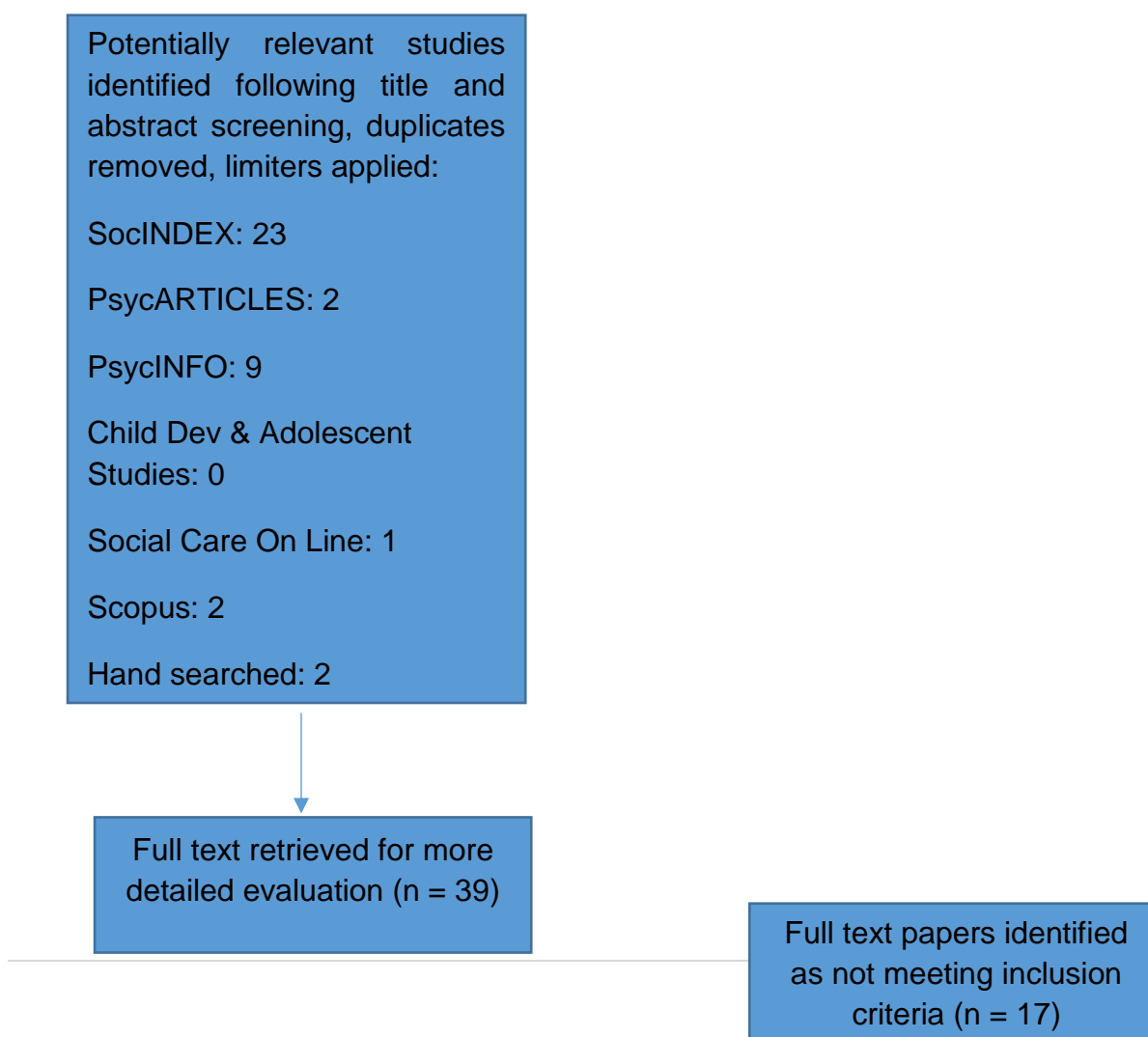
	Inclusion Criteria	Exclusion
Population 1	Research about children who are in or have been in foster care (short and long term). 0 – 18 years.	Research about children who have never been in foster care.
Population 2	Birth parents of P1	Birth relatives such as grandparents, siblings, extended family. Non-relatives
Intervention	Any interventions used by professionals found to improve relationships with birth parents and foster children e.g. family therapy, open approach from foster carers etc.	
Comparative Intervention		Absence of Intervention Research that doesn't involve interventions e.g. excludes those that are only concerned with the impact of birth parent contact on children in care.
Type of Study	Written in English	Non- English written papers
	1989 onwards (After the CA 89) to promote the welfare of the child	Before 1989
	Qualitative and quantitative studies. Primary published studies. Peer reviewed and linked to full text only.	Non empirical studies. Theoretical literature, discussion papers, unpublished research, grey literature, non-peer reviewed.
Outcome measures	Parenting skills Child behaviour problems	

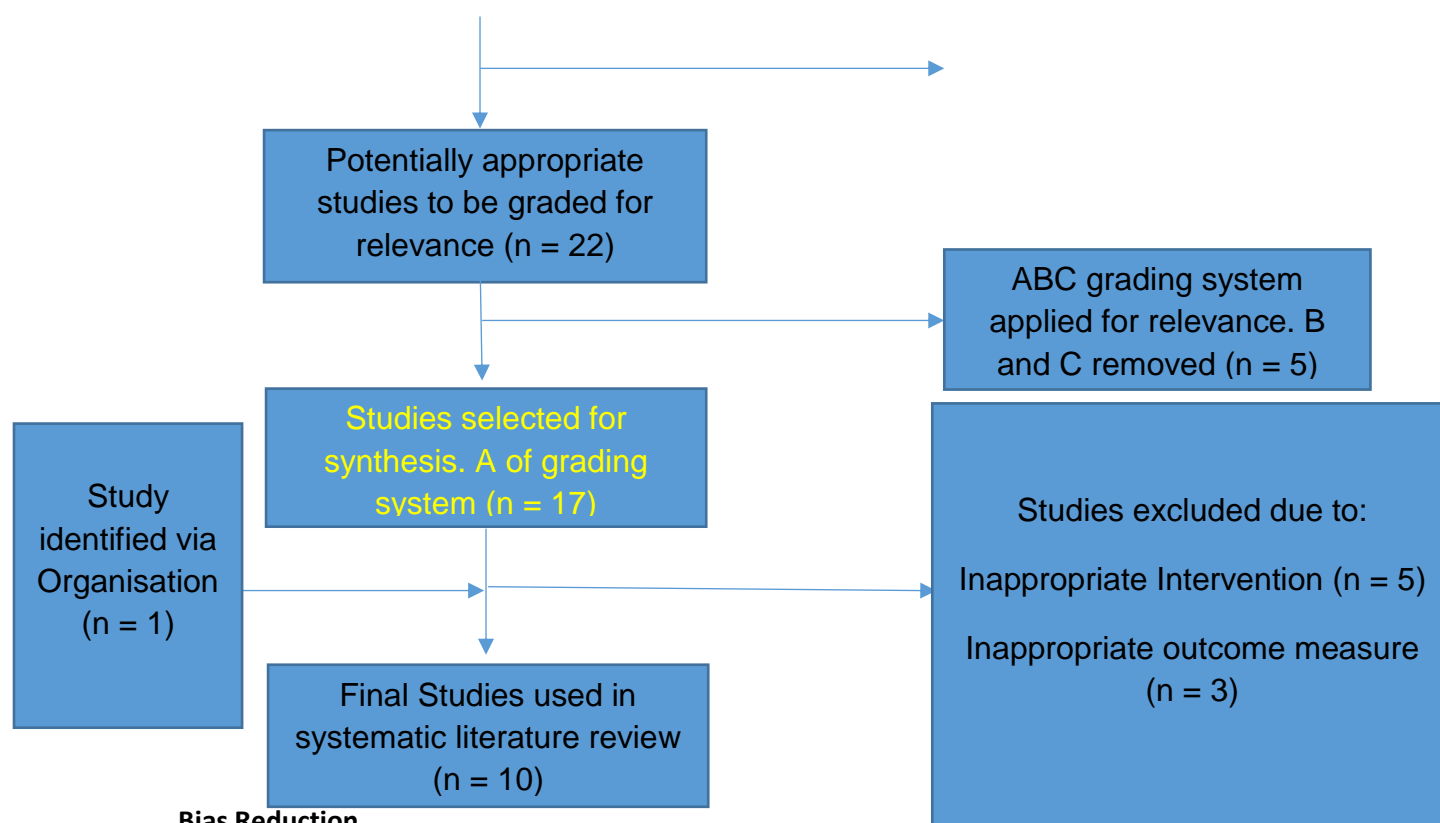
	Reunification	
--	---------------	--

We independently reviewed the abstracts of studies to accept or reject for full text review based on the above PICO inclusive and exclusive criteria. We also independently reviewed the full texts of the studies identified from the above data sources and met to reconcile any disagreements in the data extracted. The studies which did not meet the inclusion criteria were excluded. The eligibility of retrieved studies was assessed independently by the authors of this report. There were few disagreements, which were resolved through discussion between the two review authors.

Figure 1 below shows that 37 potentially relevant studies were identified following title and abstract screening with duplicates removed after limiters applied. A further 2 were identified through hand searching. Of the 39 studies retrieved, full text was evaluated and 22 studies were found to meet the inclusion criteria. These potentially appropriate studies were then graded for relevance using an ABC system with less relevant studies excluded ($n = 5$). The remaining 17 studies were selected for synthesis and a further study was included acquired through organisational information via email correspondence within the hand search. Upon data extraction and critical appraisal 5 studies were removed due to inappropriate interventions and 3 due to inappropriate outcome measures, leaving a total of 10 final studies.

Figure 1: Search Strategy Flow Chart





Bias Reduction

Bias is the deviation of results from the truth due to error(s) in the method used that could result in overestimation or underestimation in research findings (Gardenier and Resnik, 2002). It can be introduced into research at a number of points, when conducted, when data is recorded or when information is analysed (Newman et al. 2005) and is 'the deviation of results from the truth due to systematic error(s) in the methods used' (Newman et al., 2005 pg.57). This is especially important in the current study as due to its context it is undertaken individually with time restrictions imposed. This could potentially lead to individual assessor bias where particular opinions may dominant e.g. the seeking of articles that demonstrate effectiveness of the assessors preferred interventions. The potential for assessor bias became particularly apparent when implementing the grading system for relevance. Limited time scales could also lead to exclusion of relevant material and potential bias.

A systematic review may be biased in the way the review papers are selected (Bettany-Saltikov (2012). There are a number of issues in this study that were considered in terms of bias. The first issue is termed publication bias, in which the research papers with positive outcomes are most likely to be selected and submitted for publication; in turn these types of papers are more likely to be selected for publication as opposed to articles with negative outcomes (Borland et al, 2014). The second is that this systematic review is subject to time constraints. This means that the amount of literature that will be appraised due to time restrictions could overlook may not include important data and results in overestimation or underestimation of research findings. The third issue is that in an ideally situation, a systematic review will have at least two reviewers to allow for bias reduction but due to the nature of this systematic review, it was carried out by only one this researcher. The third fourth issue is that this review was confronted by language bias as all appraised literature was only carried out on papers written in English thereby excluding possible evidence in all other languages. This review is therefore limited and may be prone to a number of biases. However, to increase the papers internal validity and minimise the limitation - exclusion and inclusion criteria was followed and systematic approach to reviewing literature also adhered to. Table 3 shows the inclusion and exclusion criteria and reason for inclusion or exclusion:

The inclusion and exclusion criteria also assist in the systematic process thus reducing bias. It is important to note that exclusion of non-English papers may itself cause language bias and relevant non English research relating to the question could be left out. Often studies that report positive findings are most likely to be published in English language journal while studies with negative outcomes are more likely to be published in local-language only journals again contributing to publication bias. The inclusion criteria also specified only articles with access to full text. This could potentially lead to missing out on the most up to date evidence. For example results of a study that has recently been reported at a conference which may only have abstract format available until a later date. The risk of bias tool was applied independently by the two report authors and disagreements resolved through dialogue. For example, we used reference management software 'Refworks' independently to keep track of any identified papers from within the electronic databases. Folders were also created independently, which were entitled 'Included', 'Excluded' and 'Need Full text' and papers were exported accordingly for each database searched. All selected studies were discussed and agreed. Equally, the reasons for excluded studies were discussed and agreed.

According to Petticrew and Roberts (2006) who state that if only one type of design is used in a systematic review then biases occur. Thus using a range of designs as the current paper does assists in reduces such bias. thus using a range of designs assists in reducing such bias. It is also important to note that all but one study is based in the US which could lead to potential bias in terms of inability to generalise to other countries. However as the UK often follows the US in terms of policy and practice and our similarities in diverse culture and western societies means that these studies are of potential relevance. There is always risk of bias however within the identified studies, increasing with studies lower down on the hierarchy of evidence. All randomised controlled trials stated random allocation but did not adequately describe how intervention and control group were selected or assigned. Two RCT's (1, 2) had blind assessors and used Intention to treat analysis but studies (3, 4) did not clarify if assessors were blind to random assignment and did not use ITT. All four RCT studies identified possible biases such as self-reported information bias, measurement bias and the Hawthorne effect and made attempts to reduce them. It is Only two out of the four (1, 2) stated consent and committee approval. Quasi-experimental study 5 used matched group design, a control group and discussed threats to internal validity but unclear on consent and confidentiality. Quasi-experimental study 6 however had no control group which has potential for misleading conclusions. It is also noted control groups should be part of a quasi-experimental designs criteria. The Pre Post-test design study (7) had a very small sample, large dropout rate and no control group, however it discussed moderator variables and stated approved consent. The remaining cross sectional studies (8,9,10) made attempts to reduce bias but were weakest in terms of level of hierarchy of evidence and more susceptible to selection and information bias. Furthermore, the studies consisting of mainly US research focused on a variety of sample populations with differing needs, ages and ethnicities which were tentatively taken into account when generalizing to the overall population and their relevance to work in the United Kingdom.

Data Extraction and Quality Appraisal

Bettany-Saltikov (2012) advice that data extraction can be one of the most challenging aspects of the methodology, but by using a data extraction tool can be done so in a constant way thus promoting validity. Data extraction involves going back to primary articles and highlighting relevant information that will answer the research question (Bettany-Saltikov, 2012). This tends to involve extracting data against the PICO (Population, Intervention, Comparison and Outcome) as previously discussed. To ensure the process is standardised and to certify the validity of the results it is imperative to use a data extraction form (Bettany-Saltikov, 2012). At this stage in the process it is known that the articles selected are relevant to the question and have adhered to the inclusion/exclusion criteria. The

purpose of the data extraction form is to extract all the information relevant to the impact of a care status on offending behaviour, inclusive of the methods as well as the outcomes (Bettany-Saltikov, 2012).

Quality appraisal is an essential step to ensure the relevance, credibility, ethical rigor and methodological validity of the search results. We used Data Extraction and quality appraisal simultaneously and found the combination to be a more systematic and time effective way when reading through the articles. We also used Caldwell's (2004) quantitative critical appraisal framework, which consisted of 18 questions, with higher scores attributing to better quality papers. Both data extraction and quality appraisal forms allowed thorough examination of studies, in a systematic way that ensured all papers with varying information were treated the same with standardised generic forms. It was also helpful to dissect all sections of the paper, not just the methodology and design quality but for example ethical components and background literature which could impact on overall quality. When extracting data it was important to become fully immersed in the process (Noyes and Lewin, 2011). The extraction forms were created to breakdown all important aspects of quantitative research and assisted in clarifying all component parts e.g. sampling strategy, data collection methods, quality of methods and generalizability. At the end of the form a section for 'weight of evidence' was included in terms of graded Relevance and Design which assisted in gaining an overall picture of each paper. These were cross referenced against the critical appraisal scores to ensure accurate representation. The quality appraisal and data extraction tools used in this study could be found in appendices 1-10 and 1:1-1:10 respectively.

The Caldwell et al (2005) Framework consisting of eighteen questions was used to critically appraise the ten included studies. All papers were quantitative thus Caldwell's six specific quantitative questions were applied. This was a useful process to ensure all studies were treated with equal rigour acting to reduce assessor bias. Full appraisal answers can be viewed in Appendices 1 to 10, along with corresponding data extraction forms (see Appendices 1.1 to 10.10). Appraisal summary scores can be seen in Table 3. All scores were relatively high, ranging from 34 to 29 out of a possible 36. Although scores were generally higher in the randomised controlled trials corresponding with the hierarchy of evidence, some of the cross sectional design scores designs matched in score. This is likely due to well performed studies, good attempts to reduce bias, more generalizability and clearly reported ethical considerations.

Table 3: Critical Appraisal Summary showing Caldwell Framework for Quantitative Data (Caldwell et al, 2005)

Critical Appraisal Questions No = 0 Partly = 1 Yes = 2		Studies										
		1	2	3	4	5	6	7	8	9	10	
1	Does the title reflect the content?	2	2	2	2	2	2	2	2	1	2	2
2	Are the authors credible?	2	2	2	2	2	2	2	2	2	2	2
3	Does the abstract summarise the key components?	2	2	2	2	0	2	2	2	2	2	2
4	Is the rationale for undertaking	2	2	2	2	2	2	2	2	2	2	2

	research clearly outlined?										
5	Is the literature review comprehensive/up-to-date?	1	2	2	2	2	2	2	2	2	2
6	Is the aim of the research clearly stated?	2	2	2	2	2	2	2	2	2	1
7	Are all ethical issues identified and addressed?	2	2	1	0	0	0	2	2	1	0
8	Is the methodology identified and justified?	2	2	2	2	2	2	2	2	2	2
9	Is the study design clearly identified, and rationale for choice of design evident?	2	2	2	2	2	0	0	2	1	1
10	Is there an experimental hypothesis clearly stated? Are key variables clearly defined?	1	2	1	2	2	2	2	2	2	1
11	Is the population identified?	2	2	2	2	2	2	2	2	2	2
12	Is the sample adequately described and reflective of the population?	2	2	2	1	1	1	1	1	1	1
13	Is the method of data collection valid and reliable?	2	1	1	1	2	1	1	1	2	1
14	Is the method of data analysis valid and reliable?	2	2	1	2	2	1	2	2	2	2
15	Are the results presented in a way that is appropriate and clear?	2	2	2	1	2	2	2	2	1	2
16	Are the results generalizable?	1	1	1	1	1	1	1	1	2	2
17	Is the discussion comprehensive?	2	2	2	2	2	2	2	2	1	2
18	Is the conclusion comprehensive?	2	2	2	2	2	2	2	2	1	2
	Total Score	33	34	33	30	31	29	31	32	32	29

Study Characteristics

A wide range of designs were included which Petticrew and Roberts (2006) highlight as act to reduce bias through avoiding a skewed view of available evidence within a particular subject area. For example if all were randomised controlled trials there would be a focus on intervention at an individual level whereas cross sectional designs are useful in addressing questions on a community level. Furthermore answers on a city wide basis as opposed to individualised interventions could potentially lead to implementation in a more doable and cost effective way (Petticrew and Roberts 2006). Also a selection of studies which offer more evidence of both internal and external validity, rather than interval validity is more helpful in answering the research question (Petticrew and Roberts 2006).

Four prospective randomised controlled trials used a combination of checklist questionnaires e.g. the Parent Daily Report or the child behaviour checklist, interviews and child welfare records to measure parenting practices, child behaviour and reunification. One retrospective and one prospective quasi-experimental design used child welfare records to measure reunification. One prospective Pre Post-test design and three prospective cross sectional designs used a combination of questionnaires and case records to measure reunification.

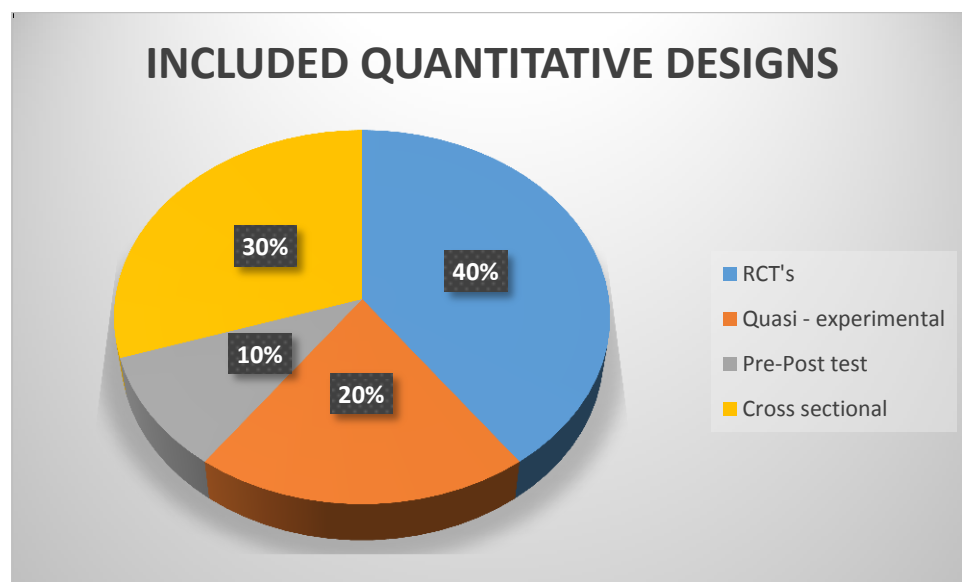


Fig 2: Included designs breakdown

Population

All but two studies focused on birth parents and children currently in foster care. Study 1 focused on children who were returning home from care for the first time. Study 4 focused specifically on foster parent training and was included because it also assisted in answering the 'What works' question as it was seen to benefit the relationship between birth parent and child. All but one study participants were located in a variety of US states with the remaining in Canada (7). All studies covered mental health, substance and domestic abuse but two (1, 10) focused specifically on substance abusing birth parents. Study 6 consisted of an ethnically diverse sample, Study 2 consisted of African American and Latino's, Study 5 of mainly Caucasians and Study 8 had a majority of Black or Hispanic mothers. Four studies (1, 2, 3, and 8) focused specifically on mothers; three studies (5, 6, and 7) were not clear in gender focus but consisted of more single mothers, while Study 9 focused specifically on birth fathers. Two studies (1, 4) consisted of children between five and twelve. Study 2 consisted of children between three and ten, Study 3 consisted of children between one and seventeen. In Study 5 the average age was five while Study 6 had a majority of under-fives but included ages up until seventeen. In Study 9 61% were five years or younger while Study 10 consisted of a majority of

one to three year olds. All foster children had experienced physical abuse or neglect. Sexual abuse was often removed from studies due to its specific individualistic intervention needs. Sample size ranged from 1,940 families (Study 10) to 13 (Study 7). The majority of studies (1, 2, 3, 4, 5, and 9) consisted of sample sizes in the hundreds.

Intervention

Interventions included a variety of parenting programs (birth parent, joint birth parent-foster carer or foster carer training), Family Centred Practice, outreach case work, a parent partner mentoring service and Family Treatment and Drug Courts. They were delivered by a variety of professionals excluding Study 5 which was delivered by birth parent mentors who had previously experienced child removal and successful reunification. Parenting program duration lasts between twelve and sixteen weeks (1, 2, 3, 4, and 6) excluding The Shared Parenting Project with longer six month duration. Parent Partner mentoring services did not have a definitive duration but were in place as long as required. Interventions were either delivered at birth or foster parent home or agency.

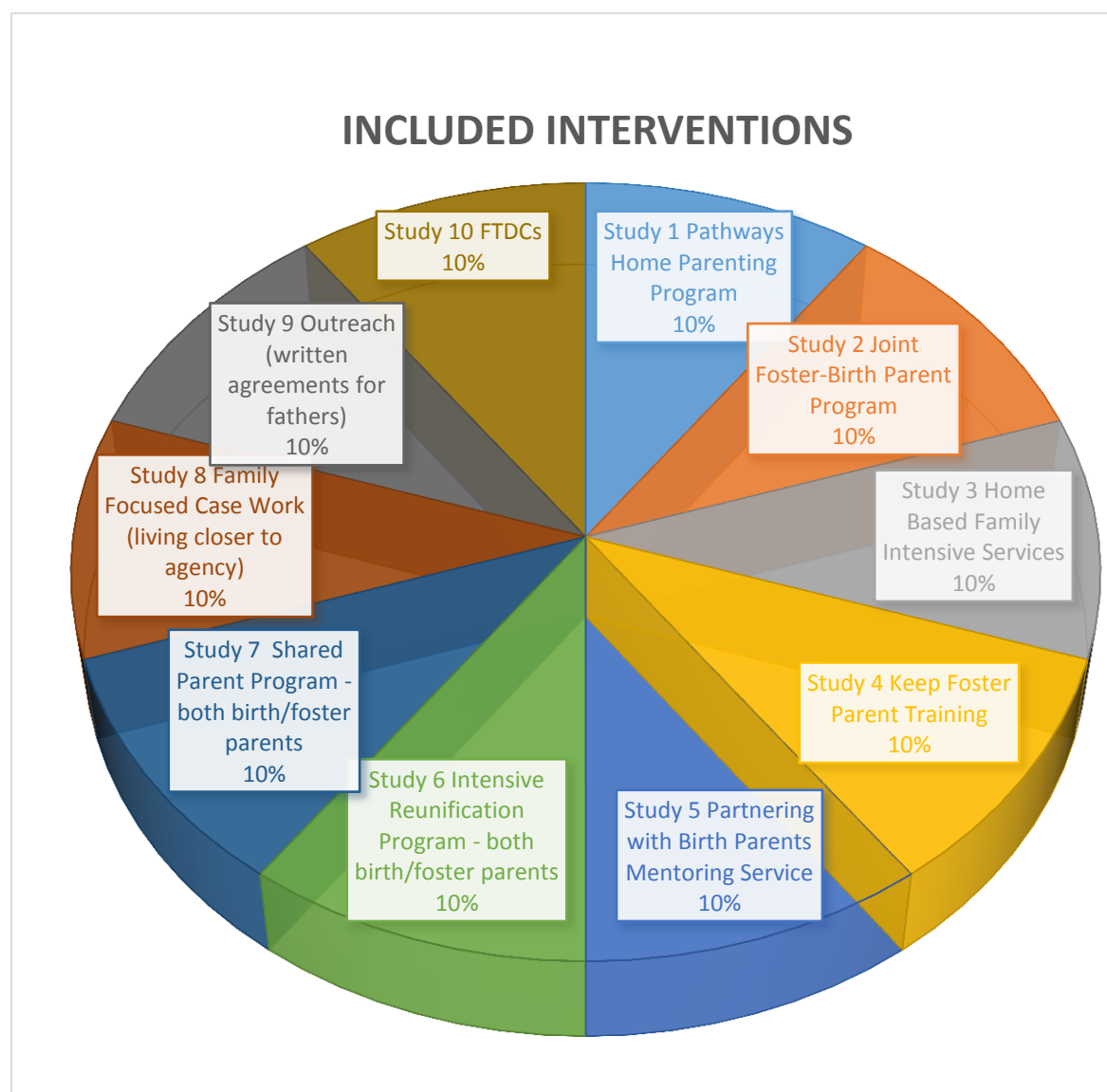


Fig 4: Breakdown of included interventions and approaches

Outcome measures

Parenting practice, child behaviour and reunification were identified as common outcome measures with reunification being the most dominant. Parenting practice measures include encouragement strategies, parenting discipline and parenting skills. Child behaviour measures include the Parent Daily Report checklist, The Child Behaviour Checklist, Eyberg Inventory and Sutter-Eyberg student behaviour inventory. Reunification measures include a combination of: number of children becoming reunified after intervention, remaining reunified at 12 month follow up and potential for reunification. Study 8 equated increased engagement scores to potential for reunification while study 9 equated increased level of casework activity to potential source of reunification.

Findings of each individual study

Study 1

The Pathways Home Foster Care Reunification Intervention (DeGarmo et al 2013) aimed to prevent re-entry into care and to increase the number of successful reunifications following the return of a child to their birth parents. The intervention was underpinned by Multidimensional Treatment Foster Care and Project KEEP programs focusing on strategies to enhance parenting skills, cooperation, new behaviours, effective limit setting and assisting improved school performance. It commenced just before reunification and continued for 16 weeks. In a Randomised Controlled Trial, participants (mothers) with specific history of substance misuse were allocated to either intervention or care as usual group. They received biweekly phone calls over the 16 week period assessing any differences in parental encouragement strategies and child behaviour problems (both measures linked to reunification success) using the PDR checklist. At 12 month follow up Child Welfare data provided information on whether children had successfully reunified or re-entered care. Following an Intention to treat analysis participants in the intervention group were found to have a higher growth rate of encouragement strategies overtime. Baseline risk factors were tested and no intervention moderators were observed. Children of mothers who had reported a higher substance misuse craving were found to have a reduction in behaviour problems and twice as many children in the control group (15%) re-entered foster care compared to the intervention group (8%). With 92% remaining reunified (intervention group) compared to 85% in the comparison.

Study 2

The two component psychosocial parenting intervention (Linares et al 2006) aimed to promote positive parenting in and co-parenting practices for both foster carers and birth parents of children in care. The intervention consisted of 1. The Incredible Years parenting classes targeted at birth-foster parent pairs and 2. Co-parenting sessions targeted at birth-parent pairs and child. The parenting component focused on play, praise/rewards, effective boundary setting and child behavioural management through role play, videotaped examples and homework. Hot meals followed after each session for birth and foster parents, children and leaders. The co-parenting component involved open communication practice, promotion of knowledge expansion and tackling conflict topics such as contact, discipline and routine within a family therapy type approach. In a randomised controlled trial, participants who were predominately female, Latino and African American were allocated to either the intervention or control group over a period of 13 weeks. Parenting practices and child externalising problems were measured through interview and questionnaire checklists. Following an Intention to treat analysis a statistical difference was found between the intervention and control group in positive discipline, with higher levels in the intervention group, on completion of intervention and three month follow up. Interestingly birth parents retained more positive discipline skills at follow up compared to foster parents. Baseline difference controlled for by covariation and intervention comparison. No statistical differences were found for child behaviour between groups; however intervention group reported children as having lower externalising problems in the Child Behaviour Checklist and Eyberg Child Inventory.

Study 3

Home based family intensive services (Walton et al 1993) aimed to promote successful and enduring reunification for families who had been separated by the placement of a child in foster care. The intervention was based on five main principles – client centred case planning and active listening, concrete services to address needs, whole family treatment, accessing resources/building support networks and help in learning new skills (parenting, household management, positive relationships) to promote family change. As part of the intervention foster children were returned home and intensive, front loaded reunification services were provided to both parent and child. Throughout the intervention, workers continually assessed safety of leaving children at birth family home. Reduced caseloads were applied to the intervention group to allow an average of 3 hours casework per week over a period of 90 days. In a randomised controlled trial, participants who were predominately female, Caucasian, single and identified as Mormon religion (although not practising) with an average age of 34 were randomly assigned to intervention or control group (routine services). The intervention was undertaken by experienced, male staff compared to routine services which comprised of younger, less experienced female workers. Reunification success was measured through comparisons between groups of 1. Child's place of residence following intervention 2. Number of days child spent at home 3. Effects of experimental reunification services. Across the 15 month period, 77.2% of children in the intervention group not only returned home but stayed or returned there compared to 47.2% in the control. Using the arcsine transformation method a strong intervention effect appeared to continue up until 12 month follow up thus an increase in both reunification and permanence.

Study 4

The Keeping Foster Parents Trained and Supported (KEEP) foster parent training (Price et al, 2009) aimed to improve parenting skills, reduce child externalising behaviour and increase the likelihood of positive exit outcomes (either reunification with birth parents or adoption) for children in foster care. The intervention was underpinned by Multidimensional Treatment Foster Care and designed to provide support and training to foster parents with children between 5 and 11 years in regular foster care. Its primary focus was to increase use of positive reinforcement, consistent use of non-harsh discipline, close monitoring of child whereabouts and child friendship groups. It also provided power struggle avoidance, managing peer relationships and improving school success strategies. In a randomised controlled experimental trial 700 foster/kin carers, who were ethnically diverse and had foster children placed with them aged between 5 and 11 were assigned to either intervention or control group. Child behaviour was measured using the PDR Checklist at baseline and treatment termination. An analysis found a reduction in child behaviour problems in the intervention group compared to the control, mediated through positive changes in parenting behaviour (measured by interview questionnaires) and increase in chance of reunification with birth parent.

Study 5

Partnering with Parents Mentoring service (Berrick et al 2011) aimed to assist birth parents with awareness of their rights and responsibilities and towards reunification. The intervention involved recruiting mothers and fathers who had experienced child removal, services and reunification for themselves and enlisting them as staff/parent partners. Parent partners offer their services at initial court hearing and are available for as long as required advocating at meetings, teaching effective communication skills, encouraging engagement with services and to remain substance free where applicable. They are able to offer a unique perspective and are excellent role models, having successfully changed their own behaviour via the use of welfare services and overcoming significant obstacles. In a quasi-experimental, retrospective design, birth parents who received Parent Partner services between 2005 and 2008 were assigned to the intervention group while the comparison group had no access to the service during the year 2004. The two cohorts were drawn from the Child Welfare Services Case Management System records and county developed Parent Partner program database. Participants included Caucasians, with the majority being African American and

Latino families. Through multivariate logistic regression and chi-square tests, children were more likely to reunify within 12 months in the Parent Partner group (58.9%) compared to the comparison group (25.2%). Age at removal, gender and ethnicity had no effect on reunification likelihood. This data suggests promise for the program to effect change.

Study 6

The intensive reunification programme for children in foster care (Gillespie et al 1995) aimed to increase successful outcomes for children who had been removed from their parents. The intervention consisted of 1. Services underpinned by the intensive family preservation model provided in the family home including therapy, parent education, crisis intervention, liaising with community agencies and monetary assistance 2. Specialised foster parent training and support groups 3. Joint birth-foster parent meetings to discuss contact arrangements, information sharing, discipline method consistency and parenting style compatibility 4. The parental contact, which increased over time, assisting with attachment and allowing staff to directly work with whole family. The programme was initially scheduled to run for 12 – 16 weeks but was also found useful for children in long term foster care and ran for 5 – 8 months respectively. In a quantitative, prospective study, 42 foster children and respective birth parents were selected to the intervention via casework referrals. Successful reunification was measured by child's residence at termination of project and at 12 month follows up. 79% of 42 foster children were successfully reunified and at 12 month follow up 91% of reunified children were still living with their birth family. A significant relationship was also found between a number of characteristics and inability to reunify – being teenage parents at birth, birth parent experience of foster care in childhood, mother's negative attitude, children being younger than six and families having more than six problems.

Study 7

The Shared Parenting program (Landy et al 1998) aimed to reduce the number of foster placement breakdowns and time in care by earlier return to birth parents or permanency planning decisions such as adoption. The intervention consisted of trained foster parents who were seen as extended rather than substitute families, offering support, guidance and advice to enhance birth parent parenting skills. Weekly interaction between birth and foster parents were expected while contact initially started with a day or overnight stay gradually increasing over the 6 month period so that children were spending half their time in both home by the end. Regular care planning conferences with a Shared Parenting team (foster and birth parents, child protection worker and Shared Parenting coordinator) were also undertaken. In a quantitative, prospective, pre post-test study, participants were gathered through caseworker referrals. Twelve months following programme commencement the number of children successfully reunified was determined. Four out of 13 cases (31%) parents completed the program and the child returned home. Some children were able to return at a later date, while one re-entered care. Case follow up at 6 months supported successful integration. Following a correlation and multi regression analysis a comparison was then made between successful outcome and family risk factors such as depression, lack of support, domestic violence etc. In sum families who moved less, had higher income, no health problems and less risk factors, were most likely to successfully complete the program and reunify. Over half withdrew or were discharged when intervention appeared to have a detrimental effect on reunification. In these cases faster decisions about permanency planning were made possible. Although only four families were successful 31% could be seen as relatively high positive given the high risk type families involved.

Study 8

A new measure of parent engagement (Alpert et al 2009) was created and tested to better assess what is related to successful birth parent and foster child reunification. The engagement measure was based on the idea that parents in receipt of family focused case work were more empowered

leading to more active engagement and more successful reunification. In a quantitative, cross sectional, prospective survey demographic and case related variables were measured in relationship to engagement/successful reunification. Study participants comprised mainly of black and Hispanic females who had an average case length of 30 months. The piloted measure of parent engagement showed good reliability and results found that parents who lived further away from agency were less engaged. This suggests that birth parents who lived closer to the agency had a higher chance of engagement and therefore reunification with their birth children.

Study 9

The current study (Franck 2001) aims to explore whether birth fathers are ignored as a resource for reunification through examination of caseworker outreach and intervention activity levels. It hypothesises that caseworkers will demonstrate a preference for birthmothers over birthfathers as targets of outreach and planning efforts. In a cross sectional, prospective design a multi-item questionnaire targeted at caseworkers, was used to measure case work activity level differences between genders. Mediating variables such as discharge goal and caseworker gender were also examined. Following a one way ANOVA and multiple regression analysis a statistical difference was found between level of case work activity with mothers having more than fathers. Mediating factors had an effect on casework activity level, with consistently higher activity for mothers but did not explain gender differences. Greater outreach equalled greater response by both birthparents and when provided with written rights and responsibilities and service plans father's response/engagement increased. The study concluded that although caseworkers do not completely ignore fathers and make an effort to engage, which in many cases is rewarded with improved response, cultural orientation towards mothers as primary care givers leads caseworkers to invest in mothers (Franck 2001). If outreach is targeted equally and in a gender specific way, with the use of written concrete balanced agreements father's response may increase and provide potential for improved reunification

Study 10

New approaches, namely the Children Affected by Methamphetamine grant programme, for working with children and families involved in Family Treatment Drug Courts (Rodi et al 2015) consisting of a more child focused service combined with recovery, were evaluated to establish whether they contributed to successful family reunification. Such child focused services offered were parent-child interaction therapy, Theraplay and Trauma-Focused CBT. In a cross sectional, descriptive, retrospective design a complex dataset of 1,940 families (2,596 adults and 4,245 children) who were linked to twelve varying Family Treatment Drug Courts, was analysed using performance indicator measures to detect improvement in reunification among a number of other variables. Sample focus was targeted at methamphetamine substance misuses but also included a variety of other common addictions. Participants had wide ethnic and child age variety. A comparative contextual subgroup was also used. Descriptive statistics and parametric tests found 58.6% children were reunified with birth parents at 12 months of intervention commencement and 97.9% of those children remained at home after 12 month follow up. Comparison groups estimate a much higher rate of re-entry into care after 6 months (13.2% compared to 2.3%). The CAM program within the context of FTDCS appears to have promising outcomes in terms of reunification as parents are more likely to engage in treatment programs if their children are also engaged in services.

Cross Studies Synthesis

Cross studies synthesis further explores relationships in the data. Unlike Bayesian meta-analysis which pools data of same/similar designs, cross design synthesis uses a form of meta-analysis that allows pooling of differing study designs and takes into account design value and population characteristics to estimate an interventions true value (Pope et al 2007). Rather than excluding lower quality studies, it uses them to help bridge gaps in high quality data (Pope et al 2007). For

example it helps us to evaluate wider population range on community levels e.g. fathers, compared to RCT's which often use unrepresentative populations e.g. already engaged participants. Thus wider ranging studies can be used to supplement RCT's so long as their potential biases are explicitly allowed for when evaluating intervention effect (Pope et al 2007)

Cross design synthesis is used when dealing with purely quantitative data, when asking questions of effectiveness and produces answers to the research question that are 'true' in particular circumstances rather than providing a universally applicable answer (Pope et al 2007). Synthesis was broken down into outcome measure categories (Reunification, Parenting Practice and Child behaviour), plus the highlighted differences between mothers and fathers in terms of targets of intervention.

Reunification

All but one study included reunification outcomes with study 2 as the exception.

Becoming Reunified

Studies 3,5,6,7, 10 reported percentage of children reunified following intervention completion. RCT (In-Home Family Focused Reunification Program) Study 3 found 93% of foster children were reunited with birth parents, Quasi-experimental Study 5 (Birth Parent Mentor Intervention) found 58% returned. Quasi-experimental Study 6 (Intensive Reunification Program with birth parent and foster carer linkage) found 72% returned. Pre Post Test Study 7 (Shared Parenting Program involving foster carers) found 31% returned while cross sectional study 10 found 58.6% reunified following treatment termination.

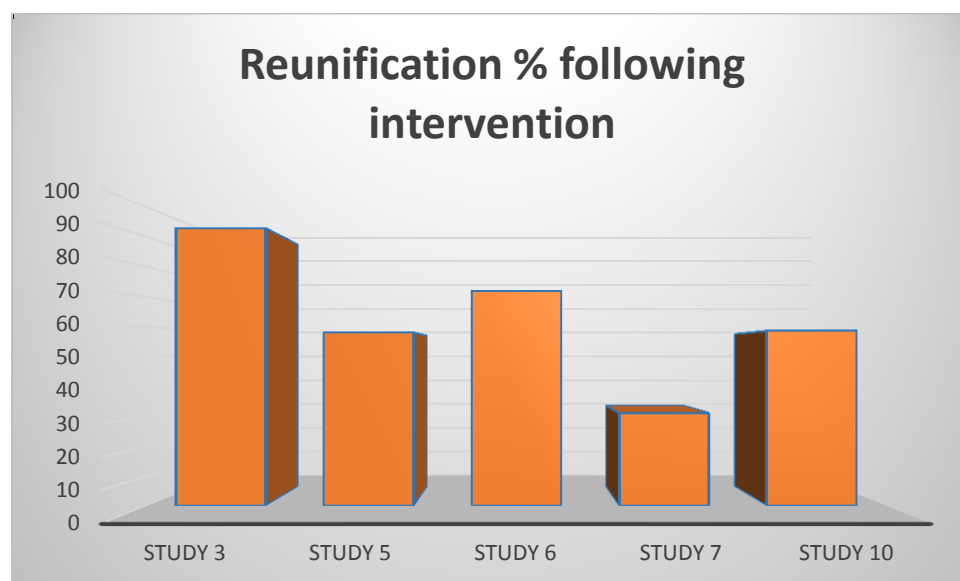


Figure 5: % of families' reunified following exposure to intervention.

Remaining Reunified

In RCT study 1, 92% of children in the Pathways home foster care intervention group remained reunified at 12 month follow up compared to 85% of the control group. In RCT study 3, 75.4% of children in the In-home family focused reunification program group remained reunified at 12 month follow up compared to 49% in the control. Although there was a bigger difference between control and intervention group in study 3, the overall % of children remaining reunified was higher in study 1. This might be explained by study 1's small sample size and its population in terms of both control and intervention group's motivation to remain reunified, as the children had already been returned home before commencement of intervention. Thus Study 3 is likely to answer the question of what

works more. However Study 3 results need to be taken tentatively as they are from a unique religious, economic and societal population. In quasi-experimental study 6, 91% of children involved in the Intensive Reunification Program for Children in Foster Care remained at home after successful reunification at 12 month follow up. In cross sectional study 10, 57% of children involved in the updated version of Family Treatment Drug Court intervention remained reunified. Study 6's results suggest that linking foster carer with birth parents in parenting programs is important in helping families reunify and stay reunified; however it is difficult to be sure as there is no control group to compare with. It is also important to note that non-randomised trials (study 6 and 10) are thought to overestimate effect sizes due to systematic error through non-random participant allocation (Petticrew and Roberts 2006)

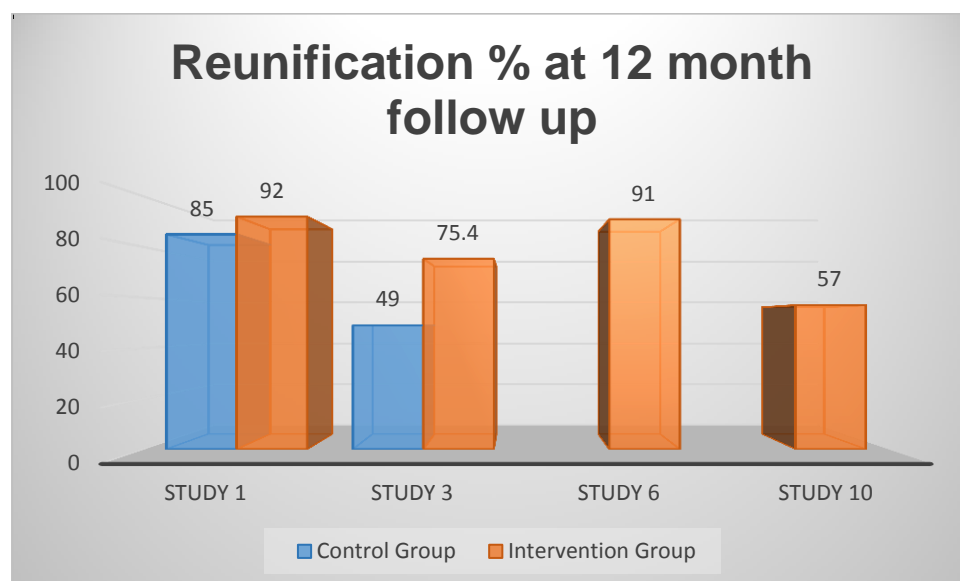


Figure 6: % comparisons between interventions in how many families had been able to remain reunified, 12 months after children had returned home from foster care.

12 month follow up after reunification is a more useful and accurate measure of success and what works to improve birth parents and their children on a long term basis.

Reunification as a measure of engagement and level of case work activity

It was found that parents who lived further away from home (study 8) were less likely to engage and reunify with foster children, while higher activity levels of gender specific case work with the use of written agreements with fathers improved potential for reunification (study 9).

Parenting Practice and Child Behaviour

Study 1 (Pathways home), Study 2 ((Promising Parenting – with foster carers) and Study 4 (KEEP Foster Parent Training) all randomised controlled trials reported parenting practice and child behaviour changes.

In Study 1, the intervention group had higher growth rate of encouragement strategies overtime compared to control but there was no main effect of child problem behaviour between control and intervention group. However child behaviour did improve in children of mothers who reported higher substance misuse cravings. Study 2 reported increase in positive discipline mean scores with 4.95 on completion for intervention group compared to 4.71 in control, however no statistical difference was found in child behaviour. Study 4 found that both intervention increased positive parenting skills and improved child behaviour compared to control. The differences in this study

compared to 1 and 2 could be due to the intervention focusing on foster parent training, who are likely to be an easier target population to engage with and change. With foster carers likely to be a more open and less resistant target group.

Working with fathers

Study 9 highlights an important factor which can be seen throughout the ten identified papers - that of current focus on working with mothers. It further highlights fathers as a missed potential resource which on a community level if targeted appropriately could be an effective way of improving birth parent and foster child relationship and all the linked negative repercussions such as breakdowns in relationships have, in a cost-effective way both at an individual and community level.

Discussion

The systematic review has addressed the question, 'What interventions/approaches work to improve the relationship between birth parents and children in foster care?' by looking at a broad range of interventions for a broad range of families and how effective they are in terms of family reunification, in increasing parenting skills and reducing child behaviour problems.

Interventions included a variety of parenting programmes (birth parent, joint birth parent-foster carer or foster carer training), Family Centred Practice – living closer to agency, outreach case work – fathers as resources, a parent partner mentoring service and Family Treatment and Drug Courts. The majority of interventions appeared to be effective in varying degrees and a common component was involvement of interaction between professionals, birth parents and foster children. Although seeming obvious that relationships can only improve when people are given the opportunity to interact, Lewis (2011) as discussed in the background highlights the typical trend of individualistic interventions once a child enters the care system, where birth parents are separated from children and their foster carers, often seen to be in the child's best interest.

In Study 3's home based intervention a whole family approach was used and involved placing children back with their birth families from care for a period of time, while applying intensive reunification services. This allowed the opportunity to build relationships in a supported environment through skills training and concrete services. This intervention was found to be highly successful in improving birth parent-foster child relationship evidenced through high levels of reunification both directly after intervention and at 12 month follow up.

However, although Study 3 is an RCT it needs to be taken tentatively as there were differences in control and intervention groups in terms of case worker characteristics (experience and gender) which could have potentially skewed results and .Furthermore the sample group was unique in terms of its social, religious and cultural context reducing generalisability. However there is no reason why hypothetically this type of intervention could not work in the UK and further research would be useful here to evaluate effectiveness within this context.

Study 2 which involved a joint birth and foster parent training scheme and hot meals with foster children resulted in increased parenting skills. However child problem behaviour was not seen to reduce perhaps due to inaccurate subjective measures given on questionnaires. Or that parenting skills had not filtered down to child's overt behaviour but instead may have started working on a more subconscious level.

Study 6's intensive reunification programme also provided opportunity for birth parents to increase contact gradually over time, where foster carers played an active role alongside parent education, therapy and monetary assistance. A high portion of families who entered this program were successfully reunited and most remained so after 12 months. Furthermore the intervention was found to be successful for both children in short and long term foster care. However once again findings need to be taken tentatively as there was no control group within this study.

Study 10 further describes the CAM program where there was opportunity for parent-child communication such as interaction therapy in the context of Drug Treatment Courts. It highlighted that successful reunification occurred due to a focus on both parent and child not just the parent.

Where intervention was not as successful disengagement was seen as a key factor. Study 7's Shared Parenting Programs high dropout rate (both through disengagement and when relationships deteriorated) impacted on level of effectiveness and highlights importance of continued engagement for successful reunifications. This intervention offered opportunity for contact and collaborate working with professionals and foster carers yet in many cases was unsuccessful. Furthermore it highlights that interventions can also have adverse effects on birth parent-foster child relationships if not targeted appropriately and when not provided alongside linkage of other support services for families when there are more complex needs, which was the case for this sample group. What the evidence shows (2011) review, referred to in the background, further highlights the importance of service delivery through targeted services that meet individual needs. It also raises the question of how better to engage and keep engaged birth parents to ensure best chance of relationship improvement.

Study 5's Partnering with Parenting Mentoring service offers an alternative approach to engaging birth parents on a level that it naturally balanced and non-threatening which may allow birth parents the opportunity to discuss openly their fears and hopes and help motivate them in the knowledge that they too have potential for successful reunification just as parent mentors have demonstrated. This is in line with the CA 89's emphasis on local authorities working in partnership with parents (Schofield and Ward, 2011) and that parents have the right to have their own needs recognised and offered support in the spirit of partnership (Schofield and Ward, 2011). This approach may be a better way of safely assisting reunification in light of serious case reviews and risk averse culture in that parent mentors can successfully engage firstly with birth parents in a more honest, open and trusting way thus providing linkage to appropriate services which work on parental issues such as mental ill health, domestic violence and substance misuse, before then providing regular contact with respective foster children, so relationships can be rebuilt in a positive and meaningful way.

One point that the 2011 paper did not discuss but was found to be an important issue in the current review was the noticeable focus on birth mothers and neglect of birth fathers within the interventions. Study 9 highlights birth fathers as potential missing resources and found they were often less engaged than birth mothers due to reduced case worker activity linked with societal gender roles and lack of birth father importance in child wellbeing. Written agreements were found to be especially useful in engaging birth fathers which could potentially equate to successful reunification. Review (2011) did however highlight the importance of mutually established goals which are part and parcel of written agreements.

Discussion of Heterogeneity

The current review consists of study, statistical and social heterogeneity. Study heterogeneity occurred through adopting a broadly scoped inclusion criteria when identifying relevant papers (0-18 years, short and long term foster care, all birth parents, all interventions) which meant that a variety of methods, participants and settings were included. This was useful in terms of establishing a range of interventions for a variety of specific needs to give an overview of current practice. Human relationships themselves are unique and heterogeneous by nature and cannot be improved by a 'one size fits all' intervention.

Social heterogeneity was found not only in terms of socio-demographic and individual differences e.g. education, income, age, race, marital status but also in terms of historical and cultural differences. All studies recognised that families have a vast number of variables such as age of child when removed, form of abuse/neglect, substance misuse, mental illness etc. In the randomised controlled trials attempts were made to control for baseline differences while uncontrolled groups

had increased risk of bias and cross sectional designs were more generalizable in nature but also more at risk of information and selection bias. Social Interventions are notoriously complex due to characteristic, outcome, context and implementation differences (Petticrew and Roberts 2006).

Identified studies that included control groups attempted to match for moderator variables e.g. gender, relationship status etc. but there is still a possibility of other confounders such as change in circumstances, the Hawthorne effect, assessor, measurement or selection bias or social worker resistance.

Most groups however did have one similarity - they were already engaged in services, which meant potential for bias and inability to generalise findings to those who resist. However due to the often mandatory nature of such intervention, although participants may well have appeared to be engaged in services on the surface, in reality there could be false compliance.

Statistical heterogeneity – differences, were found between the ten studies quantitative findings and could potentially be due to differences between studies such as baseline population or methodological differences. However similarities were also found in that most interventions were successful to some degree and improved reunification outcomes, possibly due to publication bias.

Statistical tests of heterogeneity can be performed to assess whether the observed variance in study results is greater than that expected due to chance when working with meta-analysis. However in terms of narrative reviews heterogeneity in findings may well occur by chance but in these cases is especially difficult to investigate and explain when reviewing only a small number of papers (Petticrew & Roberts, 2006).

The current review attempts to clearly and explicitly display heterogeneity in the form of characteristic, outcome and quality tables and endeavours to make sense of it through grouping of study designs, outcome measures and analysis through cross design synthesis and narrative synthesis.

Strengths and Weakness of Review

The current review included a broad range of relevant targeted interventions for a variety of service users. It looked at what works, in specific situations and also generic practice that can be applied by all to assist engagement and motivation such as collaborative inclusive practice, with a particular focus on fathers, open foster carer- birth parent relationship and the use of parent partners.

Design variety in included papers allowed for more generalizable findings and enabled the question regarding intervention effectiveness to be answered on a one to one level and a community level.

Although unable to produce a gold standard review due to resource limitations, review results were gained through a systematic and thorough approach to data collection and analysis. Papers were identified through the use of PICO format, ensuring an answerable question, prior inclusion/exclusion criteria ensuring high quality (Torgerson 2003 cited in Bethany-Saltikov 2012), a thorough search strategy including both free text and subject headings, a wide range of social databases and sources of hand searching, critical appraisal, data extraction and synthesis allowing for transparency and replication. Furthermore although the review was undertaken on an individual level with resource and time constraints, discussions with assigned tutor and library information advisor assisted in contributing to the systematic process.

The identified studies themselves were of good quality, ascertained through the appraisal and extraction process. And although cross sectional designs are seen as less robust and more open to information and selection bias they had strengths in other areas. Furthermore all studies attempted to account for bias and any moderator variables.

However, given these time and resource restrictions the majority of papers were identified through databases, excluding potentially relevant grey literature, which act to counter publication bias. Also all studies were quantitative which although are useful in terms of effectiveness of specific interventions do not assist in helping us understand participant perspectives – useful in terms of intervention implementation. Further bias may have occurred through inclusion/exclusion criteria e.g. English language only and publication bias. However inclusion criteria took a broad approach in terms of participant range, any interventions, approaches and countries which allowed for broad findings.

Due to lack of availability all but one identified paper was US based, which although has many similarities with the UK could potentially lead to cultural bias and inability to generalise. Further research would be beneficial in these areas.

Generalisability of Findings

Generalisability or external validity refers to what extent the study findings can be applied to the general population. All included studies had differing sample focus such as substance misusing mothers and foster parents. Randomised controlled trials had better internal validity and were only generalisable to similar populations outside of the study. For example The Pathways Home Foster Care Reunification Intervention targeted at substance misusing mothers would only be generalisable to other at risk groups of mothers who have substance misuse issues in western society, with children between the age of 5 and 12 year but not to fathers. A number of further studies were also unable to generalise outside of certain cultures, ages of children and specific risk groups. However cross sectional studies were able to provide a higher level of generalizability. For example Study 9 focused on birth fathers in New York which provides a diverse cultural environment and theory on societal gender roles potentially relating to western society in general. Most studies however omitted families of children who suffered sexual abuse due to associated specific intensive needs to this group.

Implications of Findings for Social Work Practice

The results found that a variety of different targeted interventions were helpful to some degree in improving birth parent and foster child relationships through assisting parenting skills and reunification both directly after intervention and at 12 month follow up. Interventions of particular success that stood out were those that used collaborative working and engaged families in a non-defensive way.

Social work practice should attempt to engage families on a collaborative and inclusive basis with the knowledge that if targeted appropriately interventions have the potential to improve complex family relations. Furthermore, cost effective missed resources of birth fathers, should be sort and engaged within a gender specific way, which if successful could benefit families and reduce immediate and long term governmental costs.

Social work practice should also consider the use of parent partners who may be able to engage birth parents in a more trusting way, having the unique perspective of knowing what it feels like. As authoritative figures social workers and other professionals can find it challenging to break down barriers with birth parents, when time is so limited. But here is an opportunity for mentors to work alongside professionals to make the first and possibly the hardest move to successful engagement, opening the doors to potential completion of relevant interventions that lead to improved relationships between birth parents and children in foster care.

Implications of Findings for Future Research

The review could benefit from looking more in depth at further into what motivates people to engage in interventions as it appears clear much most work if targeted correctly. Thus, further

future research needs to be undertaken on how to engage resistant groups. One way of doing this could be to perform qualitative research on parent partner mentors who have experienced reunification success via focus groups, exploring barriers and motivators to engagement and reunification from their perspective.

Further useful research would be to perform studies on effectiveness of Parent Partner mentors within the UK and to explore grey literature that may report differing findings on intervention effectiveness. Research on interventions with specific focus on engaging fathers would also be useful in terms of utilizing all family options to improve relationships.

Conclusion

This review confirms that there is evidence to support the use of a variety of interventions in successfully improving relationships between birth parents and foster children. Interventions should, however, be targeted appropriately within a collaborative, empathetic, inclusive approach, to promote the welfare of the child, in line with the Children Act 89. On a one-to-one level, interventions which include opportunity for birth parent and foster child to interact along with targeted services such as parent training, concrete services and addiction management, through collaborative and open working with foster carers, case workers and parent mentors are likely to be successful. While on a community level if birth fathers are targeted appropriately then there may be more chance of reunification and relationship improvements without any extra costs. Furthermore if contact is provided nearer the birth parents home relationships may stand a better chance.

To conclude, the picture of family reunification is not as disheartening as one might expect, particularly in light of the high number of children entering the care system. With the use of a new approach, allowing birth parents the opportunity to gain appropriate support from those who they feel they can accept it from, may be the key to improving these complex relationships and bring more families back together. Furthermore, tapping into resources already available – the birth father, further restorative work can be done at no added cost, ideal in a culture where budgets are cut while foster care is on the rise (DOE 2015).

However, further research should be undertaken to consolidate how these new approaches work in the UK. All findings should also be taken tentatively due to the reviews discussed limitations.

The government white paper 'Time for Change' (DFES 2007) highlights the need for better foster child outcomes and Schofield et al 2009 stress the importance of including in this development of social work practice – a commitment to good practice with parents, informed by parents experiences, which can ultimately contribute to a foster child's wellbeing and stability. Working with birth fathers and Parent Partner mentors can be seen as a good starting point in addressing this very issue.

References

Alpert, L.T. & Britner, P.A. 2009, Measuring Parent Engagement in Foster Care, *Social Work Research*, 33 (3), pp. 135-145

Aveyard, H. (2014) *Doing a literature review in health and social care: A practical guide*. Third Edition Maidenhead: Open University Press

Berrick, J.D., Young, E.W., Cohen, E. & Anthony, E. 2011, 'I am the face of success': peer mentors in child welfare, *Child & Family Social Work*, 16 (2), pp. 179-191.

Betran AP, Say L, Gulmexoglu AM, Allen T andn Hampson L (2005) Effectiveness of different databases in identifying studies for systematic reviews: experience from the WHO systematic review of maternal morbidity and mortality, *BMC Medical Research Methodology* 5: 6.

Bettany-Saltikov, J. (2012) *How to Do a Systematic Literature Review in Nursing: A Step-by-Step Guide*. Maidenhead. Open University Press.

Bowland et al. (2014) *Doing a Systematic Review: A Student's Guide*: London. Sage Publications

Caldwell, K. Henshaw, L., and Taylor, G. (2005) Developing a frame-work for critiquing health research, *Journal of health, social and environmental issues*, 6 (1), pp. 45-53.

DeGarmo, D. S., Reid, J. B., Fetrow, B. A., Fisher, P. A. and Antoine, K. D. (2013) Preventing Child Behavior Problems and Substance Use: The Pathways Home Foster Care Reunification Intervention, *Journal of Child & Adolescent Substance Abuse*, 22 (5), pp. 388-406. DOI: 10.1080/1067828X.2013.788884.

Department of Education [2015] *Number of looked-after children at 30-year high, government data reveals*. [Online] Available from: <http://www.communitycare.co.uk> [Accessed 1 October 2015].

Franck, E.J. 2001, Outreach to Birthfathers of Children in Out-of-Home Care, *Child Welfare*, 80 (3), pp. 381-399

Gardenier JS, Resnik DB.(2002) The misuse of statistics: concepts, tools, and a research agenda. *Account Res.* ;9:65–74. <http://dx.doi.org/10.1080/08989620212968>.

Gillespie, J.M., Byrne, B. & Workman, L.J. 1995, An Intensive Reunification Program for Children in Foster Care, *Child & Adolescent Social Work Journal*, 12 (3), pp. 213-228.

Great Britain. Department of Education (2009) *Serious Case Review 'Child A': Haringey LSCB*. Department of Education.

Great Britain. Department of Education (2010) *The Munro Review of Child Protection 1st report – Child Protection: A Systems Analysis*, London

Great Britain. Department of Education (2015) 2010 to 2015 *government policy: looked-after children and adoption*. London: The Stationery Office [Online]. Available from: <http://www.gov.uk> [Accessed 1st November 2015]

Great Britain. Department of Education (2003) *Every Child Matters: Change for Children*. Norwich: The Stationery Office.

Great Britain. Department of Health and Home (2003) *The Victoria Climbié Inquiry*. Norwich: The Stationery Office.

Lancaster University [No Date] *Guidance on Conduct of Narrative Synthesis in Systematic Reviews* [On Line]. Available from <http://www.lancaster.ac.uk> [Accessed 9^t March 2016].

Landy, S. & Munro, S. 1998, Shared Parenting: Assessing the Success of a Foster Parent Program Aimed at Family Reunification, *Child Abuse & Neglect*, 22 (4), pp. 305-318.

Lewis, C. (2011) Providing Therapy to Children and Families in Foster Care: A Systemic-Relational Approach, *Family Process*, 50 (4), pp. 436-452. DOI: 10.1111/j.1545-5300.2011.01370.x LINARES, L. O., RHODES, J. and MONTALTO, D. (2010)

Linares, L.O., Montalto, D., Li, M. & Oza, V.S. 2006, A Promising Parenting Intervention in Foster Care, *Journal of Consulting and Clinical Psychology*, 74 (1), pp. 32-41.

Mays, N., Pope, C. and Popay, J. (2005) Systematically reviewing qualitative and quantitative evidence to inform management and policy-making in the health field. *Journal of Health Services Research and Policy*, 10(Suppl 1): 6-20.

Newman, T et al. (2005) *Evidence-based social work: a guide for the perplexed*. Lyme Regis: Russell House.

Noyes J, Booth A, Hannes K, Harden A, Harris J, Lewin S, Lockwood C (editors), *Supplementary Guidance for Inclusion of Qualitative Research in Cochrane Systematic Reviews of Interventions*. Version 1 (updated August 2011). Cochrane Collaboration Qualitative Methods Group, 2011. Available from <http://cqrmg.cochrane.org/supplemental-handbook-guidance> [Accessed 20 March 2016]

NSPCC [no date] *Returning Home From Care – What’s best for children* [Online]. Available from: <http://www.nspcc.org.uk> [Accessed 1 October 2015]

Pawson, R (2006) *Evidence-based policy: a realist perspective*. London: Sage

Pettigrew, M., Roberts R. (2006) *Systematic reviews in the social sciences: A practical guide*. Australia: Blackwell Publishing

Pope, C., Mays, N., Popay, J. (2007) *Synthesising qualitative and quantitative health evidence*. Maidenhead: Open University Press

Popay et al (2006) *Guidance on the Conduct of Narrative Synthesis in Systematic Reviews: A Product from the ESRC Methods Programme*. Lancaster: Institute for Health Research.

Price, M., Chamberlain, P., Landsverk, J. & Reid J. 2009, KEEP foster-parent training intervention: model description and effectiveness, *Child and Family Social Work*, 14 (2), pp. 233-242

Research Gate [No date] *Guidance on Conduct of Narrative Synthesis in Systematic Reviews* [Online]. Available from <http://www.researchgate.net> [Accessed 9 March 2016].

Rodi, M.S., Killian, C.M., Breitenbucher, P., Young, N.K., Amatetti, S., Bermejo, R. & Hall, E. 2015, New approaches for working with children and families involved in family treatment drug courts: findings from the children affected by methamphetamine program, *Child Welfare*, 94 (4), pp. 205

Schofield, G, Ward E, & Young J (2008-9) Parenting while apart: The experiences of birth parents of children in long term foster care: Full Research Report ESRC End of Award Report. RES-000-22-2606.Swindon ESRC

Schofield, G. & Ward, E. 2011, *Understanding and working with parents of children in long-term foster care*, Jessica Kingsley Publishers, London; Philadelphia;

Social Care Institute of Excellence (2010): *SCIE Systematic Research Reviews: Guidelines*. Second edition.[Online]. Available from: <http://scie.org.uk/publications/researchresources/rr01.pdf>. Accessed 1 October 2015]

The Research Ethics Guidebook [No Date] *Building Ethics into the research design – Literature and Systematic Reviews* [On Line]. Available from <http://www.ethicsguidebook.ac.uk> [Accessed 20 April 2016]

University of New England [No date] Grey Literature [On Line]. Available from <http://www.une.edu.au> [Accessed 4 February 2016]

USA, Child Welfare Information Gateway (2011) *Family Reunification: What the Evidence Shows*. Washington, DC: U.S. Department of Health and Human Services, Children's Bureau [Online]. Available from <http://childwelfare.gov> [Accessed 6 November 2015]

U.S. Department of Health and Human Services [2014] The AFCARS report [Online] Available from <http://www.acf.hhs.gov/programs/cb> [Accessed 5 Nov 2015]

Walton, E., Fraser, M.W., Lewis, R.E., Pecora, P.J. & Walton, W.K. 1993, In-Home Family-Focused Reunification: An Experimental Study, *Child Welfare*, 72 (5), pp. 473-487.

Appendix: 1

STUDY 1

Critical Appraising tool developed by Caldwell et al (2005) for Quantitative research papers

	Critical Appraisal Questions No = 0 Partly = 1 Yes = 2	1	DeGarmo, D. S., Reid, J. B., Fetrow, B. A., Fisher, P. A. and Antoine, K. D. (2013) Preventing Child Behaviour Problems and Substance Use: The Pathways Home Foster Care Reunification Intervention, <i>Journal of Child & Adolescent Substance Abuse</i> , 22 (5), pp. 388-406 DeGarmo et al. (2013)
1.	Does the title reflect the content?	2	The study content focuses on the successful reunification of birth families and prevention of re-entry into foster care for children at high risk of developing substance misuse behaviours via the Pathways Home Scheme. This intervention involves working with birth parents to minimise child problem behaviours. The title reflects the content.
2.	Are the authors credible?	2	All authors are part of the Oregon Social Learning Centre. Dr David S DeGarmo is a Senior Fellow Scientist. He has published over 65 papers and over 20 efficacy and effectiveness evaluations in the last twenty years. He is a member of the Institute of Education Science's Social and Behavioural panel. His major focus of work has been on evaluation of parent training for families at risk.
3.	Does the abstract summarise the key components?	2	Good summary of key components with clear description of findings. Includes aim, sample information, intervention characteristics, method and data

			collection, findings and practice implications.
4.	Is the rationale for undertaking the research clearly outlined?	2	Clear rational – growth in problem behaviours predicts re-entry into foster care thus intervention which targets reduction in such behaviour (The Pathways Home Foster Care Reunification Scheme) is compared to a control group to establish effectiveness.
5.	Is the literature review comprehensive and up-to-date?	1	Comprehensive literature review – discusses life course risk factors for foster children, reunification statistics (USA), elements associated with reunification breakdown, disrupted attachments, positive reinforcement and highlights lack of evidence based services for reunifying families following foster care. Extensive reference list. However a substantial portion is from scientists within the OSLC, potentially highlighting a bias in values and perspectives.
6.	Is the aim of the research clearly stated?	2	The aim of the study was clearly stated - to develop, implement and evaluate the efficacy of the 'The Pathways Home' Intervention. Hypotheses and related research clear.
7.	Are all ethical issues identified and addressed?	2	Appropriate consent obtained from participating biological parent(s) and caseworkers (legal guardians of the child). Procedures were reviewed and accepted by collaborating partners in the local Child Welfare Branch and by the centres' institutional board (IRB). Strategies put in place to ensure participants understood the experiment. Participants protected against possible information disclosure repercussions e.g. by measuring cravings rather than actual amount of substance misuse.
8.	Is the methodology identified and justified?	2	Yes, Quantitative Randomised Control Trials were used to test the effectiveness of the proposed intervention. Through the process of randomisation is it assumed all factors that might affect the outcomes will be evenly distributed across groups thus RCT's are seen as the highest form of primary research design for addressing effectiveness questions, as any differences between groups at baseline would be due to chance (Newman 2005 pg.67). Participant sample and eligibility criteria

			described with no differences between groups at baseline. It was also noted that intervention staff were excluded from screening and random allocation to minimise selection bias e.g. to ensure there was no conscious or subconscious allocation of families staff perceived as a higher risk, to the intervention group, suggesting a well conducted RCT. Data gathered through in-person interviews, questionnaires and records searches. Allowed for bias by using blind interviewers.
9.	Is the study design clearly identified, and is the rationale for choice of design relevant?	2	Yes, Refer to 8. Study design is clearly described and accounts for confounding variables and bias such as blind interviewers. Study wants to measure effectiveness of a particular intervention, RCT's are seen as the best research designs for such questions.
10.	Is the experimental hypothesis clearly stated? Are the key variables clearly defined?	2	Yes experimental hypotheses clearly stated as per data extraction form. The IV and DV's are not clearly stated but are included within the above hypotheses – The IV = type of intervention (intervention vs control group) and the DV = what is measured (encouragement strategies, child behavioural problems, foster care re-entry)
11.	Is the population identified	2	Yes, thoroughly, measures in place to ensure reduction in selection bias. e.g. blind random allocation (see. 8.)
12.	Is the sample adequately described and reflective of the population?	2	Yes, ethnicity, gender, age, educational levels, marriage status, foster care and substance misuse history all identified. Majority of parent participants had history of substance misuse which was relevant to the question and all children were reunified following first foster placement to prevent confounding variables. Single fathers were removed due to focus on maternal substance misuse. As mothers are historically the primary care givers this removal is still reflective of the population. Male partners were not excluded.
13.	Is the method of data collection valid and reliable?	2	Yes data collection method is valid. Timeline is clearly stated and appropriate when measuring before and after (within group) intervention. Both intervention and control group completed the same

			<p>measures at the same time. In-person questionnaires, questionnaires, teacher questionnaires and record searches. However unclear who attended in-person interviews, if others were present this could affect truthfulness of data by altering the conversation. Bi weekly calls to parents using Parent Daily Report Checklist to measure children's behavioural problems and parent management strategies outcomes were performed over the 16 weeks. The PDR is designed to reduce aggregate recall of frequency bias highlighting its reliability. Furthermore previous studies have demonstrated its reliability. The PDR also included questions on behaviours that were known risk factors for potential substance misuse in children. However there is always the possibility that parents might say what they think the interviewer wants to hear which can cause bias. As previously mentioned cravings vs amount consumed were measured at baseline to establish risk factors, to prevent participants having any further child protection assessments which allowed participants to be more truthful. Ethically however this is questionable. There was further discussion of bias reduction. Intervention explained clearly and data collection of measures (child behavioural problems, encouragement strategies, foster care re-entry via PDR and CWS records,) Baseline risk factors collected from questionnaire & records with risk index described at length.</p>
14.	Are the results presented in a way that is appropriate and clear?	2	<p>Yes results presented by HGLM growth models, Graphs and unstandardized logit parameter tables and findings of hypotheses stated clearly. Probability level clearly stated.</p> <p>Sensitivity analysis also performed to determine how good the experiment would be at determining 'true positives' noting attendance rate for the 16 week intervention.</p>
15.	Are the results generalizable?	2	<p>Yes generalizable to other at risk groups of mothers who have substance misuse problems. Not males or those that who do not have substance misuse issues.</p>

			Although study only involved children who had one stay in foster care results could be generalised to mothers of children on the Child Protection Register or in the general population as a preventative intervention as well as those who have been in care more than once. However results are based on children who are at home with parents so might be difficult to generalise to a population where foster children are not living with their birth parents on a day to day basis.
16.	Is the discussion comprehensive?	2	Yes recaps on Introduction and displays good discussion of findings. Short and Long term benefits of findings stated e.g. potential use of intervention as a preventative service at the family level or for foster carers and reduction in a child's future risk of substance misuse onset. Good description of possible further research e.g. to ascertain gender differences in findings and longer term follow up to improve power of intervention success. Also discussed the studies advantages e.g. repeated two weekly reports on behaviour provides more validity compared to global ratings and limitations e.g. sample size, using cravings as opposed to actual use.
17.	Is the conclusion comprehensive?	2	Looks at the bigger picture – beyond the child welfare population, assisting substance dependant mothers with coping strategies and the lack of research on understanding the role of fathers who misuse substances which could impact on the prevention of child maltreatment.
	Total Score	33	

Appendix 1.1

Data Extraction Tool

Study 1	DeGarmo, D. S., Reid, J. B., Fetrow, B. A., Fisher, P. A. and Antoine, K. D. (2013) Preventing Child Behaviour Problems and Substance Use: The Pathways Home Foster Care Reunification Intervention, Journal of Child & Adolescent Substance Abuse, 22 (5), pp. 388-406
Source	SocIndex
Aim's, objectives and rationale	Aim and objective was to develop, implement and evaluate the efficacy of the 'The Pathways

I	Home' Intervention. Rational was that growth in problem behaviours predicts re-entry into foster care thus intervention which targets reduction in such behaviour (The Pathways Home Foster Care Reunification Scheme) is compared to a control group to establish effectiveness.
Research question and/or hypotheses	'Intent-to-Treat Hypotheses for the Prevention of Child Problem Behaviours' clearly stated as follows: Intervention group expected to show increased use of encouragement based strategies over time compared to control. Intervention group expected to have decrease in child problem behaviours over time compared to control. Intervention group expected to display lower levels of re-entry into child welfare system, with increase in problem behaviours associated with re-entry.
Intervention Intervention group: Control group: Duration: Delivered by:	The Pathways Home Intervention consists of strategies to enhance parenting skills, encourage cooperation, learn new behaviours, set effective limits, track children's behaviour/location and assist improved performance at school. Parent management training and healthy self-care strategies Services as usual 16 weeks Family consultant
Design	Experimental, Randomised Control Trials
Variables or concepts measured	Child behaviour problems Encouragement strategies Foster care re-entry Baseline risk factors
Methods – Groups Comparisons made between two or more groups or within a group Baseline information:	Between group method used as it was comparing two groups on different factors simultaneously. Baseline (shortly before child leaves first foster care placement), 16 week (following completion of intervention) and 12 month (follow up).
Methods – Sampling strategy	Authors are interested in the effects of the intervention on mothers who have a history of substance misuse only.
Recruitment and Consent Incentives provided? Consent sort?	Not stated Yes

<p>Study participants</p> <p>Number assigned to each group:</p>	<p>103 families randomly assigned (53 to services as usual control families and 50 to pathways home intervention families). No difference in baseline sociodemographics or problem behaviours.</p> <p>Sample consisted of 52 boys and 51 girls, mean age of 8.23 years, mothers and fathers had similar age spread from 20 – 50 years with mean ages in their 30's.</p> <p>Wide ranging ethnicity: Majority European American with 74% mothers, 53% children and 82% fathers, remaining were African-American, Hispanic, Native-American and Multiracial.</p> <p>92% of mothers had history of substance abuse, 55% had been arrested and 47% had history of family violence. All children had experienced numerous parental figures and 41% were below expected education level.</p> <p>2 fathers removed from sample. Final Total = 101 families.</p>
<p>Data Collection</p> <p>Method of random allocation:</p>	<p>a. defining the sample – Intervention group coded 1, control group coded 0. Baseline risk factors collected from questionnaire & records. Three variables included in the analyses 1. Summative risk index 0-14 around parental arrest, substance abuse, mental illness and poverty etc. 2. Total no of children's parental and residential transitions 3. Penn parental alcohol craving Scale measure (0 to 6 Likert rating)</p> <p>b.measure/monitor aspects of the intervention– outcome measures for children's behaviour (0 to 40 summative behaviour problem items index) and parent management strategies (binary scores of 0 and 1 used to differentiate between when parents used encouragement techniques and when they did not) collected biweekly during 16 week intervention phase (total of 32 repeated calls) using the Parent Daily Report checklist (PDR)</p> <p>c. measure/monitor aspects of the sample as findings of the study – foster care re-entry outcome coded 1 for re-entry and 0 for child remaining at home (data collected from Child Welfare Services records at 12 month follow up).</p>
<p>Data Analysis</p>	<p>Main method of analysis was through telephone call interviews/questionnaires to birth parents. Computer records were also used to further ascertain baseline risk and re-entry into foster care at follow up analysis.</p>

Results and Conclusion	<p>Positive findings</p> <p>Hypothesis 1. Over time intervention group showed increase in encouragement based strategies compared to control. No intervention moderators observed.</p> <p>Hypothesis 3. Nearly twice the percentage of families in the control group experienced re-entry into care compared to the intervention group. However no significant difference between groups was found. Growth in problem behaviours was associated with increase re-entry risk.</p> <p>Negative findings</p> <p>Hypothesis 2. No decrease in problem behaviours overtime.</p> <p>However upon further tests the intervention was found to be more beneficial for mothers with higher substance cravings suggesting success for families where children are exposed to greatest risk of substance use.</p> <p>Although there was no main effect an indirect effect of the intervention - use of encouragement was associated with decrease in problem behaviour.</p> <p>Drug and alcohol cravings & number of child transitions were associated with growth in problem behaviour. Girls and single parents showed greater reductions in problem behaviours</p> <p>Facilitators</p> <p>Those who had a higher attendance rate for the intervention had more reduction in problem behaviours relative to control</p> <p>Barriers</p> <p>Measurement limitation - Measuring substance misuse as a craving as opposed to actual use may have effected results. Authors attempted to counter any possible confounding variables through knowledge of participant substance misuse history and monitoring the group's ability to remain clean and sober.</p>
Conclusion – Is it justified from the findings?	<p>Positive - Pathways Home intervention improved stability after reunification through increased parental use of encouragement, which in turn reduced problem behaviour.</p> <p>Increase in problem behaviours associated with increased risk of reunification failure and re-</p>

	<p>entry in to care. Maternal substance cravings associated with increased risk of problem behaviours, however participation in the Pathways Home Intervention buffered this risk. The findings may help break the cycle between parental substance abuse and future onset of substance abuse in children. Both problem behaviours and re-entry into care were predictors of future substance misuse.</p> <p>Negative – Even though re-entry into foster care was nearly double for control versus intervention group there was no statistical difference. Sample size and low base rate of re-entry are likely to have underpowered benefits of the intervention. Longer term follow ups may assist in testing effectiveness of intervention.</p> <p>Early engagement into services and completion of interventions is critical to success rate.</p>
Quality of Study – Reporting	
Clearly reported?	Yes
Do authors report on their relationship to study?	No
Quality of methods and data	
Trustworthiness/reliability & validity of data collection tools, methods & analysis been established?	Yes in detail
Matched groups at baseline?:	Yes
Blind assessor?	Yes, intervention staff excluded from screening and random allocation to minimise selection bias e.g. to ensure there was no conscious or subconscious allocation of families staff perceived as a higher risk, to the intervention group, suggesting a well conducted RCT. Data gathered through in-person interviews, questionnaires and records searches. Interview assessors were blind.
Withdrawals?	
Generalizability?	To mothers who have a history of substance misuse. Not to fathers or the general population.
Ethical concerns?	Strategies were put in place to ensure participants understood the experiment, participants were protected against repercussions of substance misuse disclosure via craving measures as opposed to actual consumption. However this could affect the true representation of misuse and thus

	questionably ethical regarding the children's safety and the reliability of results.
Weight of Evidence To answer 'What works to improve relationships between birth parents and children in foster care?'	Middle weight Useful in terms of working with single mothers who have a history of substance misuse. Excludes fathers. Only relevant when children have reunified with parents not while the child is still in foster care. However these strategies could be adapted to within contact sessions and preparation for when the child leaves care.

Appendix: 2

STUDY 2

Critical Appraising tool developed by Caldwell et al (2005) for Quantitative research papers

	Critical Appraisal Questions No = 0 Partly = 1 Yes = 2	2	Linares, L.O., Montalto, D., Li, M. & Oza, V.S. 2006, A Promising Parenting Intervention in Foster Care , <i>Journal of Consulting and Clinical Psychology</i> , 74 (1), pp. 32-41.
1.	Does the title reflect the content?	2	Yes
2.	Are the authors credible?	2	Yes, all associate professors at the New York University Child Study Centre.
3.	Does the abstract summarise the key components?	2	Good summary of key components with clear description of findings. Includes aim, sample information, intervention characteristics, method and data collection and findings.
4.	Is the rationale for undertaking the research clearly outlined?	2	Clear rational
5.	Is the literature review comprehensive and up-to-date? Current state of knowledge Gaps, conflicts Key up to date studies Primary and secondary literature Reference list	2	Comprehensive literature review – Covers current state of knowledge of children in care in terms of mental ill health which can lead to problems in later life. Discusses studies relating to parent training benefits to reduce such problems in the general population e.g. Incredible Years. Conflicts of studies in terms of ethnic minority groups and the differences in successful Incredible Years outcomes. Highlights gaps in research in terms of lack of evaluations of parenting program effectiveness in the context of foster care compared to children who live at home with their birth parents. Further gaps can also be seen in foster parent parent training research.

			Extensive reference list
6.	Is the aim of the research clearly stated?	2	Yes
7.	Are all ethical issues identified and addressed?	2	Yes, evidence of committee approval, informed consent and confidentiality.
8.	Is the methodology identified and justified? (Quantitative vs Qualitative)	2	Yes, Quantitative RCT's used to examine effectiveness of an intervention in a sample of families
9.	Is the study design clearly identified, and is the rationale for choice of design evident? (Experimental vs descriptive)	2	Yes, design clearly identified. Experimental design used to test for effectiveness of intervention.
10.	Is the experimental hypothesis clearly stated? Are the key variables clearly defined?	2	Yes. Key variables defined clearly.
11.	Is the population identified	2	Yes
12.	Is the sample adequately described and reflective of the population? (Size, selection bias?)	2	Yes, good description of sample, random selection and allocation implemented and any biases were controlled for.
13.	Is the method of data collection valid and reliable? (measurement bias, response bias, information bias)	1	Partly, self-reported data could lead to information bias. However use of multiple informants, blind assessors
14.	Is the method of data analysis valid and reliable	2	Yes
15.	Are the results presented in a way that is appropriate and clear?	2	Yes, good use of tables
16.	Are the results generalizable?	1	Partly, included majority of children in foster care however excludes men, and is only relevant to African Americans and Latino's
17.	Is the discussion comprehensive?	2	Yes, displays good discussion of findings.
18.	Is the conclusion comprehensive?	2	Yes, good description of possible limitations and further research.
	Total Score	34	

Appendix: 2.2

Data Extraction Tool

Study 2	Linares, L.O., Montalto, D., Li, M. & Oza, V.S. 2006, A Promising Parenting Intervention in Foster Care, Journal of Consulting and Clinical Psychology, 74 (1), pp. 32-41.
Aim's, objectives and rational	Aim and objective –. To evaluate the effectiveness of a two component adapted Incredible Years intervention on promoting positive parenting (for both foster carers and birth parents of children in care) and collaborative co-parenting practices compared

	<p>to a care as usual control group.</p> <p>To enhance service integration and collaborative working between birth parents and foster carers through co-parent training as opposed to fragmented interventions which keep them apart.</p> <p>Rational – recognition of the need to improve child wellbeing in foster care due to gaps in evidence based literature on parenting training for foster parents and for birth parents whose children are in care.</p> <p>Co-parenting has been found to reduce behavioural problems in children of divorced families so may also be effective in the fostering context hence the reason for testing the specified intervention.</p>
Research question and/or hypotheses	Hypothesis – both intervention and control families would improve their parenting, co-parenting and reduce child behavioural problems with families in the intervention group showing more of an improvement
Intervention	<p>Joint Parent training (biological and birth parent pairs)</p> <p>2 component parenting and co-parenting intervention.</p> <p>Parenting component – four programs targeted at parent pairs, play, praise and rewards, effective boundary setting and managing behavioural problems through role plays, videotaped examples and homework. Hot meals given after sessions to birth and foster parents, children and leaders.</p> <p>Co-parenting component - newly developed curriculum targeted at parent pairs and relevant child including open communication practice, tackling conflict topics e.g. contact, routine, discipline, dressing and grooming and knowledge expansion of each other through educational lessons, re-enactment and restructuring,</p>
Design	Quantitative, Randomised Controlled Trial
Variables or concepts measured	<p>Parenting (Discipline practices)</p> <p>Co-parenting</p> <p>Child behaviour (externalising problems)</p> <p>Attendance to intervention</p> <p>Service Utilization (whether birth, foster parents or children were attending any other programs, services)</p> <p>Intervention dosage (completers vs noncompleters) as effectiveness mediator</p> <p>Parent ethnic status (Latino vs African</p>

	America/other) and initial child conduct status as moderators of change.
Methods – Groups Comparisons made between two or more groups or within a group (e.g. a before and after intervention)	Within Group
Methods – Sampling strategy	Participants systematically selected from a monthly New York child welfare agency census report. Participants had to meet the following criteria to be included: substantiated history of child maltreatment, non-kinship foster care, goal of family reunification. Selection process was rigorous with a two-level process.
Recruitment and Consent Incentives provided?	Yes, clearly stated - \$25 per assessment
Consent sort?	Yes, stated clearly
Study participants	128 parents (64 foster and birth parent pairs). Children were all in short term foster care, between 3 and 10 years of age with an average stay of 8.4 months. Prior to placement most lived in inner city apartment blocks. Less neglected and more abused children in the intervention group compared to care as usual group. Majority of parents were female, Latino and African American. Approximately 50% were not well educated and single. Only one third worked outside the home.
Data Collection	<p>Defining the sample The Home observation for Measurement of the Environment was used to assess foster parenting style for 20 minutes through a combined observation and interview.</p> <p>Measure/monitor aspects of the intervention Intervention Group -To measure adherence to protocol a 5 point Likert-type scale was used. Participant satisfaction measure was collected through a questionnaire, with ratings ranging from 1 to 5 .</p> <p>Control Group - To measure service utilisation throughout the study a parent self-report checklist and a child standard instrument was employed.</p> <p>measure/monitor aspects of the sample as findings of the study</p> <p>Through the Parenting Practices Interview (PPI)</p>

	<p>parent discipline, practice and beliefs were measured via scale items e.g. In one of the four discipline scales - Positive Discipline, 15 items were used including praising, giving a hug, giving rewards.</p> <p>Co-parenting relationship was assessed via the Family Functioning Style Scale. Both birth parent and foster parent self-reported using a 5 point scale</p> <p>Child externalising behaviour was measured via The Child Behaviour Checklist and The Eyberg Child Behaviour Inventory (birth and foster parents) while The Sutter-Eyberg Student Behaviour Inventory was used by school teachers to assess disruptive classroom behaviour.</p> <p>The number of parenting and co-parenting sessions each parent attended over the intervention course was collected to measure attendance to intervention.</p> <p>Service utilization was measured using a yes/no parent report (created specifically for the study and the Brief Services Assessment for Children and Adolescents.</p>
Data Analysis	<p>Baseline difference preliminary analysis assessing birth parent and foster parent characteristics and differences between intervention verses control.</p> <p>ANCOVAs were performed at the end of the intervention and at follow up.</p> <p>Intervention main effect (combined parent groups) and interaction effect (parent x study condition) were examined.</p> <p>Secondary analysis performed to examine mediators and moderators of change using ANCOVAs for each dependant variable.</p>
Results and Conclusion	<p>Positive –</p> <p>Preliminary Analysis –</p> <p>Psychosocial characteristic differences found at baseline between birth parent and foster parent groups e.g. biological parents were generally younger and reported higher levels of parental distress.</p> <p>Birth parents reported higher scores on appropriate discipline, harsh discipline and mutual social support compared to foster parents.</p>

	<p>The above baseline outcome differences were controlled by covariation and intervention comparison within the secondary analysis</p> <p>No baseline difference in service utilization.</p> <p>Overall no significant differences at baseline between intervention and control group in terms of psychosocial characteristics and study outcomes (parenting practice, co-parenting and child externalizing problems)</p> <p>No significant difference in attendance between biological and foster parents</p> <p>Positive discipline was higher in the intervention group at end of intervention and at follow up.</p> <p>At follow up clear expectations were higher in the intervention group</p> <p>At the end of intervention co-parenting flexibility and problem solving was higher in intervention group.</p> <p>Although not statistically different, intervention group reported children as having lower externalising problems in the Child behaviour Checklist and the Eyberg Child Inventory Birth parents retained more positive discipline skills at follow up compared to foster parents.</p> <p>Secondary Analysis</p> <p>Completers had higher levels of positive discipline compared to non-completers</p> <p>Birth parents showed higher attendance, engagement and completion rates compared to those who had children at home.</p> <p>Positive parenting was higher on completion of 6 or more sessions for both birth parent and foster carer highlighting importance of dosage to reach intended program outcome.</p> <p>Facilitators/Barriers</p> <p>African Americans reported improvement in harsh discipline compared to Latino parents.</p> <p>Initial level of child behaviour problems did not</p>
--	--

	<p>moderate intervention effects.</p> <p>Negative – Reduction of co-parenting gains at follow up</p> <p>No difference in child externalising behaviour at school.</p> <p>Inconclusive</p>
Conclusion – Is it justified from the findings?	<p>Positive – Findings indicate both birth parents and foster parents used positive parenting practice, had clear expectations and collaboratively co-parented on completion of the intervention and at follow up more than the control, usual care condition.</p> <p>Due to links between low levels of positive parenting practices and abuse/neglect and attachment difficulty risks for children in foster homes these are positive findings.</p> <p>Intervention is superior to usual care in parenting and co-parenting for such a hard to reach population.</p> <p>The feasibility of a joint format parent education intervention was tested and found to be a cost effective alternative.</p> <p>Co-parenting was found to be an important factor in promoting change.</p> <p>There may be a need for system wide training efforts to promote and strengthen collaborative co-parenting between birth parents and foster parents e.g. open rules for communication exchange.</p> <p>Treatment retention has historically been a problem and highlights the need for continued maintenance support for both parents thus combating against reduction in co-parenting gains at follow up.</p> <p>Inconclusive</p> <p>The Co-parenting component was only completed by a small portion of participants. One of the reasons for this may be that the joint format of the parenting IY course enabled birth parents contact with their children in a less threatening safe environment where they could discuss parenting skills.</p> <p>Overall findings show a trend for a slowing down of child externalising problems in the</p>

	<p>intervention group compared to an acceleration in the care as usual.</p> <p>Conclusion is justified and in line with findings.</p>
<p>Quality of Study – Reporting</p> <p>Clearly reported?</p> <p>Do authors report on their relationship to study?</p>	<p>Yes very, all aspects clearly reported.</p> <p>No</p>
<p>Quality of methods and data</p> <p>Trustworthiness/reliability & validity of data collection tools, methods & analysis been established?</p> <p>Measurement bias</p> <p>Selection bias</p> <p>Allocation bias</p> <p>Well matched control and intervention participants?</p> <p>Blind assessors?</p>	<p>Good description of how researchers minimised intervention bias by measuring for adherence to protocol in the intervention group and guarding against control group contamination by asking clinical workers not to use any other techniques other than those within the ‘usual’ care program.</p> <p>Very clear description of fall out rates</p> <p>Blind assessors thus control for assessor bias.</p> <p>Intent to tread methodology</p> <p>Controlled for baseline child abuse verses neglect differences in intervention and control group.</p> <p>Outcome data was based on parent self-reports thus a possibility of bias and the hawthorn effect. However researchers use multiple informants (foster, birth parents and teacher) to provide self-rating validity and independent foster home observations.</p>
Generalizability?	<p>Generalizable to African American and Latino birth mothers and foster mothers of children in short term foster care, with abuse and neglect as cause of removal. Not to sexual abuse, long term or Kinship care or where goal is not reunification. Excludes fathers and children over ten.</p>
Ethical concerns?	<p>None, although some may argue that it is unethical to restrict intervention e.g. control group, it would be unethical to provide a service that does not work thus a control group is needed for this very reason. The study had a 60 to 40 assignment ratio in response to the clinical needs of the sample and to guard against intervention attribution which goes some way in address this ethical dilemma.</p>
<p>Weight of Evidence</p> <p>To answer ‘What works to improve relationships between birth parents and children in foster care?’</p>	<p>Relevance – (A)</p> <p>Useful in terms of a new initiative intervention for all parties (birth parents, foster carers and children).</p>

HIGH WEIGHT	<p>Cost effective and implementable.</p> <p>Design – A</p> <p>Excellent design and internal validity.</p>
-------------	---

Appendix: 3

STUDY 3

Critical Appraising tool developed by Caldwell et al (2005) for Quantitative research papers

	Critical Appraisal Questions No = 0 Partly = 1 Yes = 2	3	Walton, E., Fraser, M.W., Lewis, R.E., Pecora, P.J. & Walton, W.K. 1993, In-Home Family-Focused Reunification: An Experimental Study , <i>Child Welfare</i> , 72 (5), pp. 473-487.
1.	Does the title reflect the content?	2	Yes,
2.	Are the authors credible?	2	Yes, all are either professors or managers of the college of social work in Utah/University of Washington or employees of Utah Department of Human Services.
3.	Does the abstract summarise the key components?	2	Good summary of key components with clear description of findings. Includes aim, sample information, intervention characteristics, method and data collection and findings.
4.	Is the rationale for undertaking the research clearly outlined?	2	Clear rational
5.	Is the literature review comprehensive and up-to-date?	2	Comprehensive literature review – Covers Public Law act emphasis on efforts to be made to reunify families, an increased focus on parental rights and a lack of quality alternatives. Discusses the few studies available on family reunification studies and highlights their positive results Extensive reference list
6.	Is the aim of the research clearly stated?	2	Yes
7.	Are all ethical issues identified and addressed?	1	Partly, ensured high risk children were removed from the sample population.
8.	Is the methodology identified and justified?	2	Yes, clearly.
9.	Is the study design clearly identified, and is the rationale for choice of design evident?	2	Yes, design clearly identified. Experimental study of an interventions effectiveness.
10.	Is the experimental hypothesis clearly stated? Are the key variables clearly defined?	2	Yes, testing for effectiveness of intervention. Key variables defined clearly.
11.	Is the population identified	2	Yes

12.	Is the sample adequately described and reflective of the population? (Size, selection bias?)	2	Yes, good description of sample, good uses of sampling frame and selection criteria of appropriate participants who were randomly selected and assigned.
13.	Is the method of data collection valid and reliable? (measurement bias, response bias, information bias)	1	Partly, Caseworkers were not randomly selected and were not well matched. Possible measurement bias too due to limits of some of the dependant variables.
14.	Is the method of data analysis valid and reliable?	2	Yes
15.	Are the results presented in a way that is appropriate and clear?	2	Yes, good use of graphs.
16.	Are the results generalizable?	1	Partly, Utah's specific religious, social and economic aspects make the study less generalizable. It also focused on single women and excludes men.
17.	Is the discussion comprehensive?	2	Yes, displays good discussion of findings.
18.	Is the conclusion comprehensive?	2	Yes, good description of possible limitations and further research including the need for more birth parent participant research.
	Total Score	33	

Appendix: 3.3

Data Extraction Tool

Study 3	Walton, E., Fraser, M.W., Lewis, R.E., Pecora, P.J. & Walton, W.K. 1993, In-Home Family-Focused Reunification: An Experimental Study, <i>Child Welfare</i> , 72 (5), pp. 473-487.
Aim's, objectives and rational	Aim and objective – To promote successful and enduring reunification through testing the effectiveness of In-home family based services compared to a services as usual control group. Rational – Lack of research in reunification services following out of home placement. The few studies available however show that when using preservation intervention in the reunification context permanency and reunification can be increased thus the study wants to further examine the potential for preservation services used as reunification services.
Research question and/or hypotheses	Research question - to test effectiveness of family preservation services when reunifying families with their children (Family Reunification Services).
Intervention	Family Reunification Services Based on five main principles

	<p>Case work intervention to provide client centred case planning and active listening</p> <p>Concrete services to be made available to address main needs</p> <p>Treat the family as a whole</p> <p>Assist families to access resources and build support networks</p> <p>Help learn new skills – parenting, household management and positive relationship in place of psychopathology to promote family change.</p> <p>90-Day Service, three visits per week, front loaded, home-based, focused toward concrete services e.g. transportation, cash assistance, repairs and skills training (communication, anger management etc.). Follow up services in place on intervention completion.</p> <p>Control group – one visit per month to child in placement and family assistance e.g. offer mental health services or parenting classes.</p>
Design	Randomised Controlled Trial/ Post-test only experimental design
Variables or concepts measured	<p>DV - Measurements of reunification</p> <p>Child's place of residence at end of 90 day treatment, six month and twelve month follow up</p> <p>Total number of days child spent at home within the above timeframe</p> <p>Effects of experimental reunification services</p>
Methods – Groups Comparisons made between two or more groups or within a group (e.g. a before and after intervention)	Within Group
Methods – Sampling strategy	<p>57 participant Families selected (from computer generated list of children in care) and randomly assigned to treatment (In-home family based services) and control (routine reunification services) groups.</p> <p>Computer generated list screened to meet following criteria – 30 day plus placement, reunification was not imminent, reunification was part of the case plan, child had ability to return home. Families were excluded as follows – child thought to be at immediate risk of harm, child in specialised treatment program, child scheduled to return home within 30 days, no parent, parent and/or child refuse to participate.</p> <p>Following exclusion from eligibility criteria sampling frame was 41.1% of all children in</p>

	<p>care at time of study.</p> <p>Workers were not randomly assigned</p>
Recruitment and Consent Incentives provided?	Unclear
Consent sort?	Not reported
Study participants	<p>Child Demographics</p> <p>Majority of children were Caucasian with wide ranging age between 1 and 17 years. Neglect most common reason for removal, followed by child behavioural problems, physical and sexual abuse. Previous placements ranged from 1 to 7 and time in care ranged from one to 88 months with an average of 12 month.</p> <p>Family Demographics</p> <p>Generally four person families, single parents, white, females with mean age of 35 years. Families changed address frequently, the majority had at least one adult employed, while the remainder had a low income. Majority identified as Mormon but most indicated religion wasn't important.</p> <p>Treatment and control group found to have no significant demographic differences.</p>
Data Collection	<p>measure/monitor aspects of the sample as findings of the study</p> <p>Data collection as follows:</p> <p>Child's place of residence at end of 90 day treatment, six month and twelve month follow up</p> <p>Total number of days child spent at home within the above timeframe</p> <p>Effects of experimental reunification services</p>
Data Analysis	<p>Comparisons made on the above measures of reunification between the treatment and control group.</p> <p>Arcsine transformation method to ascertain treatment effect size</p>
Results and Conclusion	<p>Positive –</p> <p>Reunification services effective?</p> <p>Higher amount of children returned and stayed at home in treatment group compared to control group.</p> <p>Who spent more time in their homes?</p> <p>Treatment group spent more time in their homes</p> <p>Did children re-enter out of home care?</p> <p>Lower amount of treatment group children re -</p>

	<p>entered care.</p> <p>Treatment group effect size was large at 90 days and medium at six and twelve months, Both reunification and permanence appear to be strong in the treatment group</p> <p>Facilitators - results suggests Family Reunification Services if implemented by experienced caseworkers have a strong effect on families compared to routine reunification services.</p> <p>Barriers – may need lower caseloads to implement intervention. However front loaded so should save time in long run.</p> <p>Inconclusive</p>
Conclusion – Is it justified from the findings?	<p>Positive – Significant differences were found between families who had Family Reunification services compared to those who had routine services with more children returning and staying home.</p> <p>There were three areas of importance highlighted: 1. Providing concrete services 2. Explicit focus on reunification 3. Problem solving and communication skills training</p> <p>CAM represents a fundamental shift in practice from parent recovery to child and family wellbeing.</p> <p>Yes justified and in line with findings.</p>
Quality of Study – Reporting Clearly reported?	Yes
Do authors report on their relationship to study?	No
Quality of methods and data Trustworthiness/reliability & validity of data collection tools, methods & analysis been established?	<p>Caseworkers were not randomly assigned but self-selected thus selection bias. This led to badly matched treatment and control worker groups. Treatment group consisted of mostly experienced males in their late forties while control group consisted of mostly younger less experienced females with an average age of thirty five.</p> <p>Thus this difference may have meant the differences in results may have been due to caseworker difference rather than intervention.</p> <p>Potentially also measurement bias due to limitations of ‘time in home’ as dependant variables</p>
Generalizability?	<p>Generalizable to white single women but sample was from a unique sample group in terms of religious, social and economic factors.</p> <p>Only generalizable to experienced, male</p>

	caseworkers
Ethical concerns?	
Weight of Evidence To answer 'What works to improve relationships between birth parents and children in foster care?' HIGH WEIGHT	Relevance – (A) Useful in terms of potential to reunify families, however study is specific to casework credentials and a unique Utah sample. However there is potential for this working within the general western population, for white, single women at least. The service provided is nothing new just more time and lower caseloads which if targeted to policy makers and budget holders corrected could improve family wellbeing and cut costs in the long term. Design – A

Appendix: 4

STUDY 4

Critical Appraising tool developed by Caldwell et al (2005) for Quantitative research papers

	Critical Appraisal Questions No = 0 Partly = 1 Yes = 2	4	Price, M., Chamberlian, P., Landsverk, J. & Reid J. 2009, KEEP foster-parent training intervention: model description and effectiveness, Child and Family Social Work, 14 (2),pp. 233-242
1.	Does the title reflect the content?	2	Yes
2.	Are the authors credible?	2	Yes, All authors are professionals within the Oregon Social Learning Center and Child and Adolescent Services Research Center.
3.	Does the abstract summarise the key components?	2	Yes, includes clear objectives, methods, results and conclusion.
4.	Is the rationale for undertaking the research clearly outlined?	2	Clear rational
5.	Is the literature review comprehensive and up-to-date? Current state of knowledge Gaps, conflicts Key up to date studies Primary and secondary literature (experimental studies or reviews) Reference list	2	Yes, comprehensive literature review - Includes current state of knowledge, key up to date studies with conflicting results and identifies gaps in research. Both primary and secondary sources used. Extensive reference list
6.	Is the aim of the research clearly stated?	2	Yes
7.	Are all ethical issues identified and addressed?	0	Unclear

8.	Is the methodology identified and justified? (Quantitative vs Qualitative)	2	Yes
9.	Is the study design clearly identified, and is the rationale for choice of design evident? (Experimental vs descriptive)	2	Yes
10.	Is the experimental hypothesis clearly stated? Are the key variables clearly defined?	2	Yes
11.	Is the population identified	2	Yes
12.	Is the sample adequately described and reflective of the population? (Size, selection bias?)	1	Partly, small sample size and possibility of selection and allocation bias as no information about method of assignment
13.	Is the method of data collection valid and reliable? (measurement bias, response bias, information bias)	1	Partly, possibility of information bias
14.	Is the method of data analysis valid and reliable?	2	Yes
15.	Are the results presented in a way that is appropriate and clear?	1	Partly
16.	Are the results generalizable?	1	Partly
17.	Is the discussion comprehensive?	2	Yes, displays good discussion of findings.
18.	Is the conclusion comprehensive?	2	Yes, good description of possible limitations and further research.
	Total Score	30	

Appendix: 4.4

Data Extraction Tool

Study 4	Price, M., Chamberlian, P., Landsverk, J. & Reid J. 2009, KEEP foster-parent training intervention: model description and effectiveness, <i>Child and Family Social Work</i> , 14 (2), pp. 233-242
Aim's, objectives and rational	Aim and objective – 1.to evaluate effectiveness of KEEP foster training program in terms of reducing child behaviour problems through improved parenting skills. Rational – to find effective intervention that will work to reduce child behaviour problems thus improve foster placement instability and reduce multiple moves which are thought to have a further major impact on child behaviour, chance of reunification and later life mental health.
Research question and/or hypotheses	Research Question –
Intervention	KEEP Foster Training Primary focus on increasing positive reinforcement, consistant use of non-harsh

	discipline methods, importance of close monitoring of child's whereabouts and friendship circle.
Design	Quantitative, experimental RCT
Variables or concepts measured	Child behaviour Parenting skills Reunification
Methods – Groups Comparisons made between two or more groups or within a group (e.g. a before and after intervention)	Between Group
Methods – Sampling strategy	Foster/Kin parents who have foster children between ages of 5 and 12.
Recruitment and Consent Incentives provided?	Not stated
Consent sort?	Not stated
Study participants	700 were assigned to either intervention or control group (38% to control), diverse ethnic spread.
Data Collection	Defining the sample Measure/monitor aspects of the intervention measure/monitor aspects of the sample as findings of the study PDR Checklist for child behaviour Foster parent interviews to measure positive parenting Unclear how reunification/permanency planning was measured
Data Analysis	
Results and Conclusion	
Conclusion – Is it justified from the findings?	
Quality of Study – Reporting	
Clearly reported?	Yes.
Do authors report on their relationship to study?	Yes
Quality of methods and data Trustworthiness/reliability & validity of data collection tools, methods & analysis been established? Measurement bias Selection bias Allocation bias Well matched control and intervention	

participants?	
Blind assessors?	
Generalizability?	To Foster parents with diverse ethnic spread
Ethical concerns?	Unclear
Weight of Evidence	Relevance – (A)
To answer ‘What works to improve relationships between birth parents and children in foster care?’	Offers potentially successful intervention for foster carers that improve child behaviour and increase chance of reunification.
Medium WEIGHT	Design – B

Appendix: 5

STUDY 5

Critical Appraising tool developed by Caldwell et al (2005) for Quantitative research papers

	Critical Appraisal Questions No = 0 Partly = 1 Yes = 2	5	Berrick, J D., Cohen E & Anthony E. (2011) Partnering with Parents: Promising Approaches to Improve Reunification Outcomes for Children in Foster Care , <i>Journal of Family Strengths</i> , 11 (1), 14
1.	Does the title reflect the content?	2	Yes
2.	Are the authors credible?	2	Yes, all associate professors at the New York University Child Study Centre.
3.	Does the abstract summarise the key components?	0	No
4.	Is the rationale for undertaking the research clearly outlined?	2	Clear rational
5.	Is the literature review comprehensive and up-to-date? Current state of knowledge Gaps, conflicts Key up to date studies Primary and secondary literature Reference list	2	Comprehensive literature review – includes current state of knowledge, gaps in literature, key up to date studies and both primary and secondary literature. Extensive reference list
6.	Is the aim of the research clearly stated?	2	Yes
7.	Are all ethical issues identified and addressed?	1	Ethical issues around random allocation of sibling groups however it is important to acquire evidence based intervention effectiveness No evidence of committee approval, informed consent and confidentiality.
8.	Is the methodology identified and justified? (Quantitative vs Qualitative)	2	Yes, justified why a randomized controlled trial was not possible – due to partner relationship between researchers and the public child welfare agency.
9.	Is the study design clearly identified, and	2	Yes, design clearly identified. Quasi -

	is the rationale for choice of design evident? (Experimental vs descriptive)		experimental designs are used to test whether those who receive an intervention improve more than those who don't. This is in line with the studies research question.
10.	Is the experimental hypothesis clearly stated? Are the key variables clearly defined?	2	Research question clearly stated. Key variables defined clearly.
11.	Is the population identified	2	Yes
12.	Is the sample adequately described and reflective of the population? (Size, selection bias?)	1	Partly, sample demographics were a bit patchy, unclear how many mother and fathers took part, possibility of selection bias. However random allocation of sibling groups.
13.	Is the method of data collection valid and reliable? (measurement bias, response bias, information bias)	2	Yes
14.	Is the method of data analysis valid and reliable?	2	Yes
15.	Are the results presented in a way that is appropriate and clear?	2	Yes
16.	Are the results generalizable?	1	Partly,
17.	Is the discussion comprehensive?	2	Yes, displays good discussion of findings.
18.	Is the conclusion comprehensive?	2	Yes, good description of possible limitations and further research.
	Total Score	31	

Appendix: 5.5

Data Extraction

Study 5	Berrick, J D., Cohen E & Anthony E. (2011) Partnering with Parents: Promising Approaches to Improve Reunification Outcomes for Children in Foster Care, <i>Journal of Family Strengths</i> , 11 (1), 14
Aim's, objectives and rational	<p>Aim and objective –. To evaluate effectiveness of a family strengthening peer support model in family reunification</p> <p>Rational –There has been a focus on providing intervention to birth parents of children in foster care via social workers or other professionals with disappointing findings. Peer mentoring has however been welcomed by service users and used in a number of contexts such as substance abuse programs, however there has been a lack of research on the effectiveness of mentors. The current study wants to address this knowledge gap in terms of support mentors for birth parents who have</p>

	themselves experienced and successfully navigated the process of child removal and reunification.
Research question and/or hypotheses	Research Question – Are birth parents who use Parent Partner services more likely to reunify than those who don't?
Intervention	Parent Partner vs No access to Parent Partner Service
Design	Quantitative, Quasi-experimental design
Variables or concepts measured	DV = reunified vs not reunified measured by the CWS/CMS case episode termination reason of "reunified with parent" IV = presence or absences of Parent Partner
Methods – Groups Comparisons made between two or more groups or within a group (e.g. a before and after intervention)	Between Group
Methods – Sampling strategy	Sample data drawn from Child Welfare Case Management system records. Parent Partner service to parents between July 2005 and March 2008 as experimental group (n = 221) Where there were sibling groups they were selected at random to the intervention group. The comparison group were drawn from an entry cohort of children who were removed from their parents in 2004. Sibling groups were selected at random to the comparison group. Groups were matched in terms of ethnicity, case intervention reason, substance use, gender, and child age (n = 54)
Recruitment and Consent Incentives provided? Consent sort?	Not stated Not clear
Study participants	Majority in both groups were Caucasian. 32.6% African American and 22.6% Latino in intervention group. Average age of child was 5 in both groups while average age at removal was younger in comparison group compared to intervention.
Data Collection	Defining the sample Measure/monitor aspects of the intervention measure/monitor aspects of the sample as findings of the study CWS/CMS case episode termination reason of "reunified with parent or guardian" measure to test for reunification.
Data Analysis	Multivariate analysis of demographic characteristics and Chi-square tests.
Results and Conclusion	Positive – Children more likely to reunify in the Parent Partner group compared to the comparison

	<p>group. 58.9% of children reunified compared to 25.5%</p> <p>Reunification was five times more likely to occur in Parent Partner group</p> <p>Age at removal, ethnicity or gender had no effect on reunification likelihood</p>
Conclusion – Is it justified from the findings?	<p>Positive – Data suggests Parent Partner program assists in motivating change and parents using the service were four times more likely to reunify with their children compared to matched samples who were involved in child welfare before the program was implemented.</p> <p>Facilitators – availability of parent partner at out of office hours.</p> <p>Conclusion is justified and in line with findings.</p>
Quality of Study – Reporting	
Clearly reported?	Partly, no tables or diagrams on reunification comparisons, lack of abstract ad conclusion.
Do authors report on their relationship to study?	Yes
<p>Quality of methods and data</p> <p>Trustworthiness/reliability & validity of data collection tools, methods & analysis been established?</p> <p>Measurement bias</p> <p>Selection bias</p> <p>Allocation bias</p> <p>Well matched control and intervention participants?</p> <p>Blind assessors?</p>	<p>Randomised Controlled trial was not workable for the current study.</p> <p>Historical cohort controls are not ideal</p> <p>Design doesn't control for internal validity threats such as history or selection bias.</p> <p>Treatment group may be representative of parents most motivated or able to change, engage and work towards reunification than the comparison group as they agreed to undertake the program.</p> <p>Matched design controlled for differences linked to reunification outcomes e.g. gender, however differences in ages of child at removal between groups.</p> <p>Timeline and sample size did not allow for statistical analysis of re-entry in to care likelihood</p>
Generalizability?	Generalizable to Caucasian parents of children in care. Also to African Americans and Latino's. Not clear whether parents were male or female or both.
Ethical concerns?	Unclear on how consent and approval was sort. Sibling group randomization felt unethical however the importance of collecting evidence based research on this intervention is necessary and overrides such issues.
Weight of Evidence	Relevance – (A)
To answer 'What works to improve	Offers a new and innovative approach to

relationships between birth parents and children in foster care?’	assisting parents of children in foster care. Incredibility relevant to UK child welfare.
HIGH WEIGHT	Design – B

Appendix: 6

STUDY 6

Critical Appraising tool developed by Caldwell et al (2005) for Quantitative research papers

	Critical Appraisal Questions No = 0 Partly = 1 Yes = 2	6	Gillespie, J.M., Byrne, B. & Workman, L.J. 1995, An Intensive Reunification Program for Children in Foster Care, <i>Child & Adolescent Social Work Journal</i> , 12 (3), pp. 213-228.
1.	Does the title reflect the content?	2	Yes
2.	Are the authors credible?	2	Yes, Gillespie is At-Risk Youth and Family Services coordinator within Social Services, Byrne is an employee of the Children’s Psychiatric centre in Florida and Workman is a Social Work Supervisor
3.	Does the abstract summarise the key components?	2	Yes, includes clear objectives, methods, results and conclusion.
4.	Is the rationale for undertaking the research clearly outlined?	2	Clear rational
5.	Is the literature review comprehensive and up-to-date? Current state of knowledge Gaps, conflicts Key up to date studies Primary and secondary literature (experimental studies or reviews) Reference list	2	Yes, comprehensive literature review - Includes current state of knowledge, key up to date studies with conflicting results and identifies gaps in research. Both primary and secondary sources used. Extensive reference list
6.	Is the aim of the research clearly stated?	2	Yes
7.	Are all ethical issues identified and addressed?	0	Unclear
8.	Is the methodology identified and justified? (Quantitative vs Qualitative)	2	Yes
9.	Is the study design clearly identified, and is the rationale for choice of design evident? (Experimental vs descriptive)	0	No, there is no control group but it states a quasi-experimental design.
10.	Is the experimental hypothesis clearly stated? Are the key variables clearly defined?	2	Yes
11.	Is the population identified	2	Yes
12.	Is the sample adequately described and reflective of the population? (Size, selection bias?)	1	Partly, small sample size and possibility of selection bias due to referrals of participants by case workers
13.	Is the method of data collection valid and	1	Partly, No control group and instrument

	reliable? (measurement bias, response bias, information bias)		used was not tested for validity and reliability
14.	Is the method of data analysis valid and reliable?	2	Yes
15.	Are the results presented in a way that is appropriate and clear?	2	Yes
16.	Are the results generalizable?	1	Partly
17.	Is the discussion comprehensive?	2	Yes, displays good discussion of findings.
18.	Is the conclusion comprehensive?	2	Yes, good description of possible limitations and further research.
	Total Score	29	

Appendix: 6.6

Data Extraction Tool

Study 6	Gillespie, J.M., Byrne, B. & Workman, L.J. 1995, An Intensive Reunification Program for Children in Foster Care, <i>Child & Adolescent Social Work Journal</i> , 12 (3), pp. 213-228.
Aim's, objectives and rational	Aim and objective – To test effectiveness of combined Preservation services and foster carer focused pilot program on reunifying foster children with their birth families Rational – wants to look at gap in research on impact of foster parent-parent relationship on reunification.
Research question and/or hypotheses	Intensive family preservation model when combined with frequent contact, specialised foster parent training, frequent and supportive foster parent caseworkers, and linkage to birth-foster families will increase family reunification
Intervention	Reunification Project Provided by experienced masters level social workers and paraprofessional case aide with a case load of six to eight families with children in foster care. Services underpinned by intensive family preservation model, provided in the family home for 8 to 10 hours per week, including therapy, parent education, crisis intervention where applicable, liaising with relevant community agencies and monetary assistance. Duration was short term – 12 to 16 weeks Foster parent training /support groups – twice monthly. Parent – foster linkage – joint meeting between foster and birth parent initially in office then moved to foster-birth parent home. Discussions

	<p>included visiting arrangements, information sharing, discipline method consistency, parenting style compatibility etc.</p> <p>Parental Visiting – increased visiting over time, assisting in maintaining bond and allowed staff to work directly with both family and child.</p> <p>Foster parent – social worker contact – every two weeks.</p>
Design	<p>Stated as Quasi-experimental because no participant random selection and no control group. However Newman et al (2005) states that quasi-experimental designs only differ from RCT's in terms of no randomisation but do have control groups.</p>
Variables or concepts measured	<p>DV = child's residence at termination of project</p> <p>Successful outcome = return to family or relative's home</p> <p>IV (Service provision variables) = intensive family preservation services, visiting between family and child, contact between foster and birth families, agency support for foster carers, measured by frequency of contact between them and social worker, specialised foster carer training within project.</p> <p>Child characteristic variables</p> <p>Variables relating to foster child's stay in care on entering the program</p>
<p>Methods – Groups</p> <p>Comparisons made between two or more groups or within a group (e.g. a before and after intervention)</p>	<p>Only one group.</p>
Methods – Sampling strategy	<p>Birth and foster parents of 42 children in Northern Virginia Social Services Department custody who participated in the reunification project between 1990 and 1992.</p> <p>Referrals screened as follows:</p> <ul style="list-style-type: none"> Availability of family for reunification Family willingness Sexual abuse cases excluded due to need for long term intervention Severe abuse cases excluded No criteria of length of time in foster care which varied from a few weeks to over two years.
<p>Recruitment and Consent</p> <p>Incentives provided?</p>	<p>Not stated</p>
Consent sort?	<p>Not stated</p>
Study participants	<p>Participating children had entered care for a</p>

	<p>variety of reasons: physical abuse, neglect, voluntary accommodation, abandonment, other court action and sexual abuse.</p> <p>Majority were white at 60%, with 31% African American and 9% of other racial groups. Equal mix of boys and girls at entry and 64% of children were under five with 19% between 6 and 11 and 17% between 12 and 17.</p> <p>Half came from a single parent family, the remaining were two parent and stepparents.</p> <p>Half had teenager mothers. At entry 31% were in receipt of public assistance.</p>
Data Collection	<p>Defining the sample</p> <p>Family characteristics data collected through project staff instrument</p> <p>Measure/monitor aspects of the intervention</p> <p>Foster care and service provision data collected through authors reading family case documents following completion of project</p> <p>measure/monitor aspects of the sample as findings of the study</p> <p>“Presenting problem list” instrument measured before and after intervention.</p> <p>Successful reunification measured by</p> <p>Success of project measured by</p> <p>Childs place of residence at intervention completion and 12 month follow up.</p>
Data Analysis	<p>Pearson chi-square was used to cross tabulate the independent variables (service provision, family characteristics, foster care variables) with the dependant variable as a measure of independence</p>
Results and Conclusion	<p>33 of the 42 children (79%) were reunified during the project. 28 to parents and 5 to relatives.</p> <p>91% were still living with family at 12 month follow up.</p> <p>Service provision variables – non significant relationship explained by majority of children receiving all program services.</p> <p>Family characteristics – significant relationship found between teenage parent at birth, parental foster care as a child, mothers negative attitude, child being under 6, and more than six problems, and inability to reunify.</p> <p>Although not significant physically abused children were more likely to return compared to neglect, abandonment, voluntary</p>

	<p>accommodation or court action</p> <p>Foster carer variables – length of stay in care was non-significant in terms of determining reunification and near statistical difference (0.0558) in social worker – foster family contact prior to intervention.</p>
Conclusion – Is it justified from the findings?	<p>Hypothesis could not be proven due to lack of control group. However it is clear that nearly all participants received all the service provisions which far exceeded usual care. The programs 79% success rate compared to that of other reunification services (60%) suggests that the combined family preservation and enhanced foster care services was successful in family reunification.</p> <p>The intervention was extended to assist children in long term foster care (five to eight months) where the role of foster parent was particularly important here to rebuild relationship between child and birth parent. Project results suggest ongoing foster carer training and frequent communication between worker and carer assist in reunification. Welfare staff need to recognise foster carers as integral member of the child and family system</p>
Quality of Study – Reporting	
Clearly reported?	Yes.
Do authors report on their relationship to study?	No
<p>Quality of methods and data</p> <p>Trustworthiness/reliability & validity of data collection tools, methods & analysis been established?</p> <p>Measurement bias</p> <p>Selection bias</p> <p>Allocation bias</p> <p>Well matched control and intervention participants?</p> <p>Blind assessors?</p>	<p>No control group so not able to adequately provide evidence for effective intervention.</p> <p>Risk of selection bias.</p> <p>Moderator variables such as passage of time or change in circumstances may have effected reunification.</p> <p>Instrument to measure presenting problems pre and post intervention was not tested for validity or reliability</p>
Generalizability?	<p>Generalizable to white, African Americans and Latino birth parents of children in short or long term foster care Intervention may not be suitable for ambivalent or teenage parents, or those who had previously been in care, who may benefit from supplementary therapeutic work.</p>

Ethical concerns?	No discussion on consent or committee approval
Weight of Evidence To answer 'What works to improve relationships between birth parents and children in foster care?' LOW WEIGHT	Relevance – (A) Offers potentially successful intervention to increase successful reunification. Design – C

Appendix: 7

STUDY 7

Critical Appraising tool developed by Caldwell et al (2005) for Quantitative research papers

	Critical Appraisal Questions No = 0 Partly = 1 Yes = 2	7	Landy, S. & Munro, S. 1998, Shared Parenting: Assessing the Success of a Foster Parent Program Aimed at Family Reunification , <i>Child Abuse & Neglect</i> , 22 (4), pp. 305-318.
1.	Does the title reflect the content?	2	Yes
2.	Are the authors credible?	2	Yes, Landy works as a Dr for Children's Mental Health at the C.M. Hincks Centre while Munro works as a consultant.
3.	Does the abstract summarise the key components?	2	Yes, includes clear objectives, methods, results and conclusion.
4.	Is the rationale for undertaking the research clearly outlined?	2	Clear rational
5.	Is the literature review comprehensive and up-to-date? Current state of knowledge Gaps, conflicts Key up to date studies Primary and secondary literature Reference list	2	Comprehensive literature review – Explanation of current primary intervention, includes theory of maltreatment risks on an individual, interactional, family, community and cultural level. Multidimensional preservation services compared to government preferred social support, parenting and child development informed cost effective programs (secondary up to date literature). Gaps in research relating to foster parents in enhanced roles to assist high risk families. Extensive reference list
6.	Is the aim of the research clearly stated?	2	Yes
7.	Are all ethical issues identified and addressed?	2	Parental consent obtained.
8.	Is the methodology identified and justified? (Quantitative vs Qualitative)	2	Yes
9.	Is the study design clearly identified, and is the rationale for choice of design evident? (Experimental vs descriptive)	0	No
10.	Is the experimental hypothesis clearly	2	Yes

	stated? Are the key variables clearly defined?		
11.	Is the population identified	2	Yes
12.	Is the sample adequately described and reflective of the population? (Size, selection bias?)	1	Partly, sample demographics were a bit patchy, unclear on ethnicity and how many mother and fathers took part. Very small sample size
13.	Is the method of data collection valid and reliable? (measurement bias, response bias, information bias)	1	Partly, possibility of measurement bias within questionnaires, Hawthorne effect. No control group
14.	Is the method of data analysis valid and reliable?	2	Yes
15.	Are the results presented in a way that is appropriate and clear?	2	Yes
16.	Are the results generalizable?	1	Partly
17.	Is the discussion comprehensive?	2	Yes, displays good discussion of findings.
18.	Is the conclusion comprehensive?	2	Yes, good description of possible limitations and further research.
	Total Score	31	

Appendix: 7.7

Data Extraction Tool

Study 7	Landy, S. & Munro, S. 1998, Shared Parenting: Assessing the Success of a Foster Parent Program Aimed at Family Reunification, <i>Child Abuse & Neglect</i> , 22 (4), pp. 305-318.
Aim's, objectives and rationale	Aim and objective – 1. to assess model of family reunification (united role of parent aide and foster parent) 2. to determine birth family characteristics associated with reunification. Rationale – Shared Parenting (Collaborative working between foster and birth parent) is thought to reduce separation anxiety for the child and allows foster carers to transfer knowledge and skills to birth parents. Offers alternative to professional intervention often met with distrust of high risk families.
Research question and/or hypotheses	Research Question – does Shared Parenting program increase reunification success or assist with earlier permanency planning and what are the factors associated with successful reunification
Intervention	Shared Parenting Project (foster parents as extended rather than substitute families) offering support, guidance, advice to enhance

	<p>birth parent parenting skills</p> <p>Contact and or home visits increased over the 6 month intervention period</p> <p>Weekly interaction between birth and foster parents were expected.</p> <p>Twelve months after commencing intervention reunification was determined.</p>
Design	Quantitative, prospective, pre post test
Variables or concepts measured	<p>Reunification or permanency planning decisions</p> <p>Parenting skill</p> <p>Family functioning</p> <p>Retention and recruitment of foster parents</p>
<p>Methods – Groups</p> <p>Comparisons made between two or more groups or within a group (e.g. a before and after intervention)</p>	Between Group
Methods – Sampling strategy	Referrals to program made by caseworkers from five child welfare agencies and screened according to criteria set by a management committee (child must be in care on a temporary care agreement, parental motivation, if addiction or mental illness present participants have to be undertaking rehabilitation program.
<p>Recruitment and Consent</p> <p>Incentives provided?</p> <p>Consent sort?</p>	<p>Not stated</p> <p>Birth parent consent gained and service agreement signed by foster carers.</p>
Study participants	Few families met originally criteria. Out of the 13 children recruited only half met all criteria. Motivation was a big issue, as it was frequently driven by court mandates which led to participation reluctance and withdrawal.
Data Collection	<p>Defining the sample</p> <p>Measure/monitor aspects of the intervention</p> <p>measure/monitor aspects of the sample as findings of the study</p> <p>Risk factors associated with abuse/neglect measured by a variety of pre-test questionnaires</p> <ol style="list-style-type: none"> 1.Becoming a Parent 2.Center for Epidemiologic Studies Depression Scale 3.Child Behaviour Checklist 4.Family and Household Information Form 5.Family Assessment Device 6.Family Relations Test 7.Family Resource Scale 8.Life Experience Scale 9.Procidano Perceived Social Support <p>Questionnaires – Family and Friends</p>

	<p>Success of project measured by</p> <ol style="list-style-type: none"> 1.child returning home and remained their 6 months later 2.faciliation of permanency planning
Data Analysis	Correlation coefficients to determine risk factors associated with reunification. Multiple regression analysis
Results and Conclusion	<p>Risk Factors</p> <p>10 families had 6 or more risk factors, a level placing parents at significant risk of abusing or neglecting their children. A number of families were at the highest risk end with serious mental illness, substance abuse, health problems, history of severe abuse in childhood, criminal activity – a high risk sample. Parents with out of control children compared to neglected/abuse more likely to reunify. Higher income and one member of family income, less moving also increased reunification. Health problems associated with no return.</p> <p>In sum families who moved less, had higher income, no health problems and less risk factors were most likely to successful complete program and reunify.</p> <p>Success of Project</p> <p>Four out of 13 cases (31%) parents completed the program and the child returned home. Some children were able to return at a later date, while one re-entered care. Case follow up at 6 months supported successful integration. Over half withdrew or were discharged when intervention appeared to have a detrimental effect on reunification. In these cases faster decisions about permanency planning were made possible.</p>
Conclusion – Is it justified from the findings?	<p>Families had multiple risk factors presenting at all levels – individual, family, interaction and society. This was a possible explanation for high dropout rate as parents were unable to trust the foster carers and thus unable to develop a therapeutic relationship. Although only four families were successful 30% could be seen as relatively high given the high risk type families. Intervention is better suited as a preventative measure for lower risk families</p>
Quality of Study – Reporting	

Clearly reported?	Yes.
Do authors report on their relationship to study?	No
Quality of methods and data Trustworthiness/reliability & validity of data collection tools, methods & analysis been established? Measurement bias Selection bias Allocation bias Well matched control and intervention participants? Blind assessors?	Pre post-test study, weaker than quasi-experimental and RCT. No control group – potential for misleading conclusion. Risk of showing effect when there is not one. The small number of successful reunifications may have been due to the passage of time or other influences e.g. change of family circumstances Very small sample size and large dropout rate. Lack of consistent training between foster carers could have skewed results. Resistance by child protection workers within the project could have accounted for lack of study success.
Generalizability?	Success of intervention generalizable to birth parents with moderate to high risk factors. However no mention of ethnicity, age of children or parents, age of child at removal.
Ethical concerns?	
Weight of Evidence To answer 'What works to improve relationships between birth parents and children in foster care?' LOW WEIGHT	Relevance – (A) Offers potentially successful intervention for high risk families. Design – C

Appendix: 8

STUDY 8

Critical Appraising tool developed by Caldwell et al (2005) for Quantitative research papers

	Critical Appraisal Questions No = 0 Partly = 1 Yes = 2	8	Alpert, L.T. & Britner, P.A. 2009, Measuring Parent Engagement in Foster Care , <i>Social Work Research</i> , 33 (3), pp. 135-145
1.	Does the title reflect the content?	1	Partly, there is a focus on Family Focused Casework which is not mentioned within the title.
2.	Are the authors credible?	2	Yes, Alpert is a senior policy analyst for Children's rights and Printer is an associate professor at the University of Connecticut.
3.	Does the abstract summarise the key components?	2	Good summary of key components with clear description of findings. Includes aim, sample information, intervention

			characteristics, method and data collection, findings and practice implications.
4.	Is the rationale for undertaking the research clearly outlined?	2	Clear rational – to ascertain what factors contribute to reunification success via a measure of engagement in an area that is understudied.
5.	Is the literature review comprehensive and up-to-date?	2	Comprehensive literature review – Overview of Family-Centred Practice, barriers to it and Qualitative and Quantitative studies that have already been undertaken including attempts at measuring parent satisfaction and the limitations to doing this. Extensive reference list with both primary and secondary sources.
6.	Is the aim of the research clearly stated?	2	Yes
7.	Are all ethical issues identified and addressed?	2	Yes, Institutional approval plus confidentiality and consent discussed clearly
8.	Is the methodology identified and justified?	2	Yes, clearly.
9.	Is the study design clearly identified, and is the rationale for choice of design relevant?	2	Yes, design clearly identified. As the study was attempting to take snapshot views of behaviour at a specific time point e.g. the measure of engagement the aims are relevant
10.	Is the experimental hypothesis clearly stated? Are the key variables clearly defined?	2	Cross sectional studies do not have hypotheses. Key variables clearly stated
11.	Is the population identified	2	Yes
12.	Is the sample adequately described and reflective of the population? (Size, selection bias?)	1	Partly, potential for selection bias as sample was drawn from parents who attended the agency and missed out those who were not actively engaging with services or who were doing well enough to not need to attend the agency.
13.	Is the method of data collection valid and reliable? (measurement bias, response bias, information bias)	1	Partly, measurement of engagement was tested and tweaked to reduce measurement bias and confidentiality agreements plus private rooms were allocated for participants to reduce information bias, however still possibility of information bias due to birth parents concerns that negative reports on their caseworkers could impact on their chances of reunification.
14.	Is the method of data analysis valid and reliable?	2	Yes
15.	Are the results presented in a way that is appropriate and clear?	2	Yes

16.	Are the results generalizable?	1	Partly, only to black and Hispanic ethnicity but not to other races, however useful to working in child welfare in western society.
17.	Is the discussion comprehensive?	2	Yes, displays good discussion of findings.
18.	Is the conclusion comprehensive?	2	Yes, good description of possible limitations and further research including the need for more birth parent participant research.
	Total Score	32	

Appendix: 8.8

Data Extraction

Study 8	Alpert, L.T. & Britner, P.A. 2009, Measuring Parent Engagement in Foster Care, <i>Social Work Research</i> , 33 (3), pp. 135-145
Aim's, objectives and rational	Aim and objective –1. To create and test out a measure of parent engagement 2. To see if demographic and case related variables effect birth parent engagement through the new parent engagement instrument. 3. To gather information regarding parent engagement Rational – parent satisfaction has often been measured to ascertain parent experience of foster care services, however it does not necessarily equate to successful reunification or successful service delivery. The current study intends to introduce a new measure that of 'engagement' to better assess what is related to outcome success. Engagement is thought to be strong if workers use family focused practice that leads to empowerment etc.
Research question and/or hypotheses	Research question - as above
Intervention	Family centred practice. Collaborative parent-caseworker relationship.
Design	Cross Sectional design
Variables or concepts measured	Measure of parent engagement (Parents receiving family focused casework-more empowered-more active engagement-more successful reunification) Measure of demographic data – Child's placement type, length of time allocated and working with caseworker and no of children in care. Case related Variables – case start date, reason for removal, mental health services indicated?

	substance abuse, domestic violence, sexual abuse allegation.
Methods – Groups Comparisons made between two or more groups or within a group (e.g. a before and after intervention)	Within Group
Methods – Sampling strategy	Sample was sourced from the agencies two city sites consisting of 400 children and their families, 60% from one and 40% from the other. All parents were eligible apart from those who had had their parental rights terminated and those who were under 18 years of age. No mention of random selection here.
Recruitment and Consent Incentives provided? Consent sort?	Yes, chance to win a thirty day public transport pass. Institutional review board approval obtained from the four relevant institutions: sampled agency, city and state public child welfare agency and the affiliated university. Consent and confidentiality explained and covered
Study participants	46 parents included in study. Approximately 70% were from site A with overall majority being English speaking women. 46% black, 46% Hispanic, remaining white or mixed race. Approximately half were single parents. In some instances couples were surveyed thus only 40 cases. Average case length of 30 months. Both physical abuse and neglect along with drug related concerns were reasons for child removal and parents had varying issues (mental health, Domestic violence and substance abuse)
Data Collection	Indicators of parent engagement (1. Degree to which parents felt caseworkers to be doing family focused case work 2. Degree to which parents felt empowered, respected etc.) – collected through parent questionnaires, where they agreed or disagreed with statements using an anchored six-point Likert type scale. Measures of demographic data collected with the about parent questionnaire. Case related variables collected through electronic case records (prone to input error)
Data Analysis	Survey targeted at birth parents T Tests, ANOVAs, Tukey honestly and Pearson's correlations run to determine within group differences.

Results and Conclusion	<p>Positive – Once tweaked the engagement instrument showed good internal consistency (Cronbach's $\alpha = .93$) and good reliability (Cronbach's $\alpha = .94$).</p> <p>Parents engagement scores did not differ due to site, gender, relationship status, language or placement type</p> <p>Tukey test revealed marginal significant difference between black parents and white/mixed background with black parents having lower engagement.</p> <p>Mean engagement scores were significantly related to distance from birth parents home to the agency and time spent with the longest running worker</p> <p>Case length not significantly associated with mean engagement</p> <p>Barriers Inconclusive</p>
Conclusion – Is it justified from the findings?	<p>Parents who live further away from the agency felt less engaged.</p> <p>The longer the relationship between parent and caseworker the lower the engagement</p> <p>Inconclusive - suggesting parents become disillusioned and the quality of casework declined in quality as time goes on.</p> <p>Yes justified and in line with findings.</p>
Quality of Study – Reporting Clearly reported? Do authors report on their relationship to study?	<p>Yes</p> <p>Yes</p>
Quality of methods and data Trustworthiness/reliability & validity of data collection tools, methods & analysis been established?	<p>Questionnaires – negatively worded items included to protect against response sets, Confidential setting provided to encourage truthful parent response countering information bias. As parents may have felt that a negative comment about caseworkers could jeopardise the chance of their child being returned home. Management of missing data covered. Response and fall out rate discussed. Instrument reliability tested through Cronbach's α.</p>

	<p>However small sample size</p> <p>Selection bias possibility due to sample drawn from parents who were actively attending agency, thus excluded those who are not actively engaged as well as those who are doing well and experiencing unsupervised contact in the community thus do not attend the agency.</p>
Generalizability?	Majority of sample was black or Hispanic so difficult to generalise to other backgrounds.
Ethical concerns?	No
<p>Weight of Evidence</p> <p>To answer 'What works to improve relationships between birth parents and children in foster care?'</p> <p>MIDDLE WEIGHT</p>	<p>Relevance – (A)</p> <p>Highlights the importance of location and difficulty birth parents have in transportation to and from social services offices which greatly impacts on engagement thus potential for reunification.</p> <p>Design – (B)</p> <p>Cross sectional design has less internal validity than RCT's. Biases discussed in depth and attempts made to counter them.</p>

Appendix: 9.9

STUDY 9

Critical Appraising tool developed by Caldwell et al (2005) for Quantitative research papers

	Critical Appraisal Questions No = 0 Partly = 1 Yes = 2		Franck, E.J. 2001, Outreach to Birthfathers of Children in Out-of-Home Care , <i>Child Welfare</i> , 80 (3), pp. 381-399
1.	Does the title reflect the content?	2	Yes, it highlights the main focus, that of outreach to birth fathers of children in foster care.
2.	Are the authors credible?	2	Ellen J Franck is Early Invention Coordinator in Children and Families Services and NY University Lecturer.
3.	Does the abstract summarise the key components?	2	Good summary of key components with clear description of findings.
4.	Is the rationale for undertaking the research clearly outlined?	2	Clear rational.
5.	Is the literature review comprehensive and up-to-date?	2	Comprehensive literature review – highlights the lack of literature on how caseworkers can engage specifically with birthfathers and the overall picture of 'forgotten, problematic and hard to reach' men. Also focused on development of gender-specific roles and how this has

			impacted on society's views. It further highlights importance of working with families to facilitate reunification and studies highlighting that interventions intended for family have focused on the birth mother. One study that did focus on fathers highlighted the difference in services and contact that were available to them compared to mothers. Extensive reference list.
6.	Is the aim of the research clearly stated?	2	Yes
7.	Are all ethical issues identified and addressed?	1	No mention of ethical committee approval or consent from birthparents. This was not an interactive participation study, data already collected was being reanalysed thus information sharing consent may have been already obtained prior to the study.
8.	Is the methodology identified and justified?	2	Yes, instrument to determine gender differences was researched and adapted specifically for study. Attempt to reduce bias and ensure reliability a test retest was performed. All variables clearly stated, relevant and justified.
9.	Is the study design clearly identified, and is the rationale for choice of design evident?	1	Partly, study design not clearly stated. Rationale clearly stated that it is looking at gender difference thus a cross sectional design which is used is appropriate.
10.	Is the experimental hypothesis clearly stated? Are the key variables clearly defined?	2	Yes, hypotheses clearly stated as per data extraction form. Yes clearly tabulated and described.
11.	Is the population identified	2	Yes
12.	Is the sample adequately described and reflective of the population? Size and Sample Bias?	1	Partly, some elements left out but not necessarily relevant to the study such as age of the birthparents.
13.	Is the method of data collection valid and reliable?	2	Yes data collection method used numerical scales. Test retest performed to ensure reliability of instrument.
14.	Is the method of data analysis valid and reliable?	2	Yes
15.	Are the results presented in a way that is appropriate and clear?	1	Partly, good description of results through ANOVA and multiple regression analysis. However no graphs to support differences.
16.	Are the results generalizable?	2	Yes, very generalizable to the male population and relevant to many services.
17.	Is the discussion comprehensive?	2	Yes recaps on Introduction and displays good discussion of findings. Good description of practice and research implications e.g. the use of written

			documents to engage fathers and research conducted directly on fathers to explore gender specific problems along with strength and contributions.
18.	Is the conclusion comprehensive?	2	Yes, focuses on fathers as a potential resource and that rigid, gender based views should not discourage caseworkers from seeing fathers as resources for their children.
	Total Score	32	

Appendix: 9.9

Data Extraction Tool

Study 9	Franck, E.J. 2001, Outreach to Birthfathers of Children in Out-of-Home Care, <i>Child Welfare</i> , 80 (3), pp. 381-399
Aim's, objectives and rational	Aim and objective – to explore whether birth fathers are being ignored as a resource for discharge planning through examination of caseworker outreach and intervention. Rational - Working with fathers may help to improve discharge planning, reunification and relationships.
Research question and/or hypotheses	Research question - investigation of caseworker activities as they relate to birth family members Hypothesis - caseworkers will demonstrate a preference for birthmothers over birthfathers as targets of outreach and planning efforts
Intervention	Casework (Outreach and intervention)
Design	Cross Sectional design
Variables or concepts measured	IV = gender of birth parent DV = casework activity Mediating Variables (to examine their impact on casework activity with mothers and fathers) Child Age of child Gender of child Caseworker Gender of caseworker Race/Ethnic match between caseworker and parent. Education of caseworker Experience of caseworker Case load size Case Turnover Relationship between birth parent and worker Discharge goal

	<p>Family Ties</p> <p>Time parent available</p> <p>Meeting difficulties</p> <p>Birth parent response</p>
<p>Methods – Groups</p> <p>Comparisons made between two or more groups or within a group (e.g. a before and after intervention)</p>	<p>Between Group (comparing mothers and fathers)</p>
<p>Methods – Sampling strategy</p>	<p>Comparing outreach efforts to birthmothers with those to birthfathers</p>
<p>Recruitment and Consent</p> <p>Incentives provided?</p> <p>Consent sort?</p>	<p>Not stated</p> <p>Not stated</p>
<p>Study participants</p>	<p>143 children (55% female/ 61% 5 years or younger) and 286 birthparents (80% lived together prior to placement/ 40% + had been married to each other, 80% mothers and 58% fathers lived with child prior to placement) included in study.</p> <p>Caseworkers – 83% women, Ethnicity evenly distributed: African-American, Hispanic, Caucasian, all with degree, caseloads averaged at 22 cases.</p> <p>Problems identified:</p> <p>Poor parenting, substance misuse followed by neglect and poor housing.</p> <p>Sample consisted of cases where both the foster child's birthparents were identified and to those that had been in care for 18 months or less to focus on early casework activity.</p>
<p>Data Collection</p>	<p>measure/monitor aspects of the sample as findings of the study</p> <p>Numerical data collection (Casework activity scale ranging from 0 – 7)</p> <p>Measuring the level of casework activity between the sample genders.</p> <p>Also Birthparent Response and Family Ties Scale</p>
<p>Data Analysis</p>	<p>Questionnaire targeted at caseworkers (instrument devised to compare casework activity between mothers and fathers)</p> <p>One way ANOVA performed for comparison of the above and then for mediating variables (comparing mean casework activity score for mothers and fathers with each individual mediating variable).</p> <p>Multiple Regression Analysis also performed.</p>
<p>Results and Conclusion</p>	<p>Positive - Greater outreach equalled greater response by both birthparents.</p> <p>When both parents provided with written rights and responsibilities and service plan, (a</p>

	<p>concrete, balanced written plan by both agency and parent stating accountability for outcome), father's response increased.</p> <p>There was no difference in casework activity in relation to casework load. Mothers always got more attention.</p> <p>Negative - Statistical difference found between level of casework activity with mothers having more than fathers.</p> <p>Discharge goal that included fathers did not increase level of casework activity with them.</p> <p>Mediating variables did not explain gender difference.</p> <p>Regardless of worker education and experience societal views on gender roles do not change.</p> <p>Facilitators to higher casework - Overall higher casework activity correlated with younger children, stronger family ties, fewer meeting difficulties, better parental response and case turnover.</p> <p>Birth parent response was most highly correlated with casework activity and had a higher variation than any other variable including parent gender</p> <p>Mothers had higher response compared to fathers and on all other components.</p> <p>Barriers – Societal gender perspectives focus on targeting outreach to women over men.</p> <p>Fathers may be ignored from outset of outreach engagement.</p> <p>Inconclusive - As casework activity precedes birth parent response, explanation for difference is complex.</p>
Conclusion – Is it justified from the findings?	<p>Positive – caseworkers do not completely ignore fathers and make some effort to engage, which in many cases are rewarded with improved response.</p> <p>Negative – cultural orientation towards mothers as primary care givers leads caseworkers to invest in mothers. Caseworker difficulty in engaging fathers and an expectation that fathers are difficult to engage – both self-fulfilling prophecies</p> <p>Fathers do not receive equal share of workers attention and are being ignored.</p> <p>Concludes if initial outreach is targeted equally to mothers and fathers and in a gender specific way father's response may increase and improve reunification outcomes.</p>
Quality of Study – Reporting Clearly reported?	Yes

Do authors report on their relationship to study?	No
Quality of methods and data Trustworthiness/reliability & validity of data collection tools, methods & analysis been established?	Yes in detail
Generalizability?	Study was specific to fathers located and identified at time of removal within New York City, a diversely cultural and economic area thus can be generalizable to fathers in London and other western major cities. However there may be some differences dependent of specific areas. Societal gender roles discussed are fairly generic in western society, thus relevant to all of us.
Ethical concerns?	Birth parent consent was not discussed. Did the three non-profit foster agencies, where the case information was drawn from, notify parents? No mention of ethics committee approval.
Weight of Evidence To answer 'What works to improve relationships between birth parents and children in foster care?' HIGH WEIGHT	<p>Relevance – (A) The casework discussed is standard practice so can be provided by many agencies without pulling any new resources. The Key to this study is to question our perceptions of a father's value. Possible training to address this and gender specific interventions (written agreements) could potentially address this issue with minimal extra cost. Furthermore as case load was not found to effect casework behaviour this fits nicely with the current climate. Social Workers will be able to implement the change without reduction in case load.</p> <p>As father's have been found to respond well when offered casework in specific ways, if more fathers are targeted there such be a potential for a large increase in family reunification and or improvements in relationships between birth parents and their respective foster children.</p> <p>Design – (A/B) Cross sectional design has less internal validity than RCT's. Methodological rigour in terms of analysis was strong. Unclear on sample consent and ethics committee approval.</p>

Appendix: 10

STUDY 10

Critical Appraising tool developed by Caldwell et al (2005) for Quantitative research papers

	Critical Appraisal Questions No = 0 Partly = 1 Yes = 2	10	Rodi, M.S., Killian, C.M., Breitenbucher, P., Young, N.K., Amatetti, S., Bermejo, R. & Hall, E. 2015, New approaches for working with children and families involved in family treatment drug courts: findings from the children affected by methamphetamine program , <i>Child Welfare</i> , 94 (4), pp. 205
1.	Does the title reflect the content?	2	Yes, clear title
2.	Are the authors credible?	2	Yes, they provide services to government agencies
3.	Does the abstract summarise the key components?	2	Good summary of key components with clear description of findings.
4.	Is the rationale for undertaking the research clearly outlined?	2	Clear rational.
5.	Is the literature review comprehensive and up-to-date?	2	Comprehensive literature review – Statistics on substance misuse in child welfare. Covers historical and developmental context of FTDCs highlighting potential need for improvements. Describes the CAM program and its purpose – a pilot to expand services to the child and child family within FTDC context and increase overall knowledge around strategies to improve family outcomes. In depth description of proposed interventions. Extensive reference list.
6.	Is the aim of the research clearly stated?	1	Partly
7.	Are all ethical issues identified and addressed?	0	No
8.	Is the methodology identified and justified?	2	Yes,
9.	Is the study design clearly identified, and is the rationale for choice of design relevant?	1	Partly, study design not clearly stated. Rational stated for choice of design.
10.	Is the experimental hypothesis clearly stated? Are the key variables clearly defined?	1	Partly, purpose of study clearly stated, however no hypothesis
11.	Is the population identified	2	Yes
12.	Is the sample adequately described and reflective of the population? (Size? Bias?)	1	Partly, large sample size, No details given on comparison group.
13.	Is the method of data collection valid and reliable?	1	Yes, Data collection via uploaded cumulative data on each of the performance indicators through internet based portal. Data screened for accuracy and thoroughness. However possibility of

			assessor bias e.g. uses of CAM performance monitoring team to review data and grantees reporting the data who ultimately had an invested interest in the research having a positive outcome. Other possible biases noted are the Hawthorne effect.
14.	Is the method of data analysis valid and reliable?	2	Yes
15.	Are the results presented in a way that is appropriate and clear?	2	Yes
16.	Are the results generalizable?	2	Yes, very generalizable to other western countries who implement FTDCs. Although the focus was on methamphetamine, intervention was useful for wide ranging substance misuse thus generalizable to this area as a whole.
17.	Is the discussion comprehensive?	2	Yes, good discussion of findings. Good description of practice and research implications, limitation and next steps.
18.	Is the conclusion comprehensive?	2	Yes
	Total Score	29	

Appendix: 10.10

Data Extraction Tool

Study 10	Rodi, M.S., Killian, C.M., Breitenbucher, P., Young, N.K., Amatetti, S., Bermejo, R. & Hall, E. 2015, New approaches for working with children and families involved in family treatment drug courts: findings from the children affected by methamphetamine program, <i>Child Welfare</i> , 94 (4), pp. 205
Aim's, objectives and rational	Aim and objective – to evaluate expanding Family Treatment Drug Court Services, implemented by the Children Affected by Methamphetamine (CAM) grant program. Rational – Due to a growing national concern of increased use of methamphetamine and its impact on families the study wants to find out if additional targeted interventions that address family needs within FTDC's assist in better outcomes for this specific population. Historically FTDCs have focused on parental recovery and family reunification. Research has highlighted a need for more child focused interventions within this context.
Research question and/or hypotheses	Research question - to understand the promising outcomes associated with expanding

	FTDC services, in terms of effectiveness and implementation.
Intervention	<p>Parenting Education <i>Nurturing Parenting in Recovery,</i> <i>SafeCare,</i> <i>Strengthening Families,</i> <i>Celebrating Families,</i> <i>Nurturing Families Program,</i> <i>Promoting First Relationships</i></p> <p>Developmental and Behavioural Intervention For Children <i>Ages and Stages Questionnaire</i> <i>COACHES – Enhanced Model</i></p> <p>Engagement and Outreach <i>Family Case Specialist</i> <i>Recovery Support or Resource Specialists – Peers in recovery.</i> <i>After Care – weekly and monthly support groups</i> <i>Peer Mentor Support</i></p> <p>Therapeutic and Trauma-Focused Parent-Child Interventions <i>Parent-Child Interaction Therapy</i> <i>Theraplay</i> <i>Child-Parent Psychotherapy</i> <i>Trauma-Focused Cognitive Behaviour Therapy</i></p> <p>Trauma-Focused Adult Interventions <i>Seeking Safety</i> <i>Helping Women Recover (substance abuse treatment) and Beyond Trauma: A healing journey for women</i> <i>Helping Men Recover</i> <i>All programs are evidenced based.</i></p>
Design	<p>Non experimental/Non outcome – Performance monitoring approach. Descriptive design</p>
Variables or concepts measured	18 Program Performance Indicators (child safety and permanency, adult recovery and family wellbeing, measured on a six monthly basis up until 24 months)
Methods – Groups Comparisons made between two or more groups or within a group (e.g. a before and after intervention)	Within Group
Methods – Sampling strategy	1,940 families (2,596 adults and 4,245 children) who were involved with twelve varying FTDCs across six US states. Sample focused on families effected by parental methamphetamine use.
Recruitment and Consent Incentives provided?	Unclear regarding birth families. However

	grantees who were collecting data were incentivised by wanting to prove the CAM program was affective.
Consent sort?	Unclear
Study participants	<p>Child Demographics Equal mix of boys and girls, 1 – 3 year olds were the most dominant age group with 13 year and older being the least. Wide ranging ethnicity with Hispanic and White being the most prominent. Missing information was clearly recorded.</p> <p>Adult Demographics Twice as many females than males. 25-34 years was the most occurring age range. White and Hispanic accounted for a large portion of the sample. Missing data was clearing stated No information on comparison group</p>
Data Collection	<p>measure/monitor aspects of the sample as findings of the study Key program performance measures collected as follows: Child/Youth (Majority % measure) C1 children remain at home: % of children at risk of removal C2 occurrence of child maltreatment % of initial and/or recurrence within 6, 12,18 and 24 months after CAM enrolment C4 Re-entries to foster care: % at 6,12,18 and 24 months C5 Timeline of reunification: % reunited with family in less than 12 months of entry into care C9 Improved child wellbeing measure by North Carolina Family Assessment Scale.</p> <p>Adult (All % measure) A1 Access to treatment: % of parents able to access timely and appropriate substance abuse treatment A2 Retention in substance abuse treatment A3: Reduction in substance use: % A4 Parents connected to support services % A5 Employment status of parents who were participating in drug treatment program % A6 Criminal behaviour: % of parents who report decrease in criminal behaviour.</p> <p>Family/Relationships F1 – Improved parenting: F2 – Improvement in family function and relationships:</p>

	<p>F3 – Risk/Protective factors</p> <p>All changes measured by North Carolina Family Assessment Scale</p>
Data Analysis	<p>Cumulative data analysis on each of the performance indicators via internet based portal.</p> <p>Descriptive statistics and parametric tests were used</p>
Results and Conclusion	<p>Positive –</p> <p>Safety Child safety in terms of recurrence of maltreatment: Very low percentage of maltreatment reoccurrence within 6 months of CAM enrolment. Comparison group displays a percentage nearly four times as high at the same stage. Reoccurrence remains low and decreases at all other time points.</p> <p>Permanency CAM programs found to have positive outcomes for children on all elements of permanency measures. Nearly all children who lived at home remained at home and those who did re-enter care were often only there for approximately 9 months compared to 11 months in the comparison group. 6 months re-entry rates in to care were five times more likely in the comparison group. Children who were discharged to adoption were done so in a timelier manner than the comparison group.</p> <p>Recovery 52.9% of adults accessed substance abuse treatment the same day they entered CAM services. Around half of treatment episodes had positive outcomes with 41.2% completed programs. 65.8% of adults reported a decrease in methamphetamine use, closely followed by marijuana, alcohol and heroin/other opiates. Over one third of employment levels increased or were maintained and criminal activity was very low.</p> <p>Well being Positive – significant improvements from initial CAM intake to discharge for all ten categories of family functioning and well-being: environment, parental capacity, family interactions, family safety, child wellbeing, social and community life, self-sufficiency,</p>

	<p>health, parent/child ambivalence and readiness for reunification.</p> <p>Family safety had the largest improvement, followed by readiness for reunification.</p> <p>Matched-paired t tests highlight significant changes on all categories from intake to discharge.</p> <p>Negative – wide range in service provision with 90% who needed parenting, family planning and trauma services given them compared to approximately one third receiving child care and domestic violence services who were deemed as needing them.</p> <p>Potential barriers – added cost implications for expanded evidence based services e.g. multiple participation for parents who had different age groups of children or when parents had conflict with partners and had to attend groups separately equalling unexpected costs for more therapists, space and transport.</p> <p>Also covers broad based partnerships with other agencies such as those involved with mental health and play therapy, and collaborative working between child welfare and treatment agencies and the courts, plus coordinated and thoughtful matching service.</p> <p>Inconclusive</p>
Conclusion – Is it justified from the findings?	<p>Positive – CAM program within the FTDCs context has promising outcomes for families in terms of safety, permanence, recovery and wellbeing. Findings suggest adding child focused services with adult recovery appears to improve family wellbeing and child safety. Parents are more likely to reduce substance use and engage in treatment programs if their children are engaged in services</p> <p>CAM represents a fundamental shift in practice from parent recovery to child and family wellbeing.</p> <p>Negative – difficulty in implementing complex and diverse needs across service providers compared to single agencies.</p> <p>Yes justified and in line with findings.</p>
Quality of Study – Reporting	

Clearly reported?	Partly – no details on comparison group demographics
Do authors report on their relationship to study?	No
<p>Quality of methods and data</p> <p>Trustworthiness/reliability & validity of data collection tools, methods & analysis been established?</p>	Evidence based interventions used. Program Performance Indicators used good quality Assessment Scale and independent assessors. Possibility of Hawthorne effect if Families had known reason behind research. On cumulative data analysis through the portal every six months, grantees may have been prone to assessor bias through review by CAM performance monitoring team. However quality and data checks were in place to minimise bias
Generalizability?	Generalizable to UK Family Drug and Alcohol Courts context.
Ethical concerns?	Unclear on confidentiality and consent. All data was gathered via an internet based data portal.
<p>Weight of Evidence</p> <p>To answer ‘What works to improve relationships between birth parents and children in foster care?’</p> <p>HIGH WEIGHT</p>	<p>Relevance – (A)</p> <p>As the UK have recently introduced Family Drug and Alcohol Courts following in the footsteps of the USA this information should be very relevant to our child welfare system.</p> <p>Design – B</p>